PHILADELPHIA, JUNE 17, 1882.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON ACUTE DISEASE IN DRUNKARDS—DELIRIUM TREMENS.

Delivered at the Philadelphia Hospital, December 15, 1881,

BY WILLIAM PEPPER, M.D.,

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Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—If I had known that this man had failed so greatly since yesterday, I should not have brought him before you this morning; but, as he is here, I shall rapidly call your attention to his condition, and have him sent back to his ward. I shall then proceed to a consideration of the different points suggested by it.

He is a young man, not more than 35 years old; he has followed the sea, and has led a life of exposure and exertion; his history is one of grave and prolonged intemperance; he has never had delirium tremens. He was not admitted to the hospital in consequence of intemperance.

He was taken about the 6th of this month (a week ago) with severe pain behind the sternum, accompanied by cough and slight frothy expectoration. He had no fever at that time, and for several days after admission no increased temperature was noticed. Examination of the heart at that time showed it to be exceedingly feeble, but without any distinct valvular murmur. The weakness of the heart revealed itself most plainly in alteration of the first sound, which was short, sharp, and valvular in character, closely resembling the ordinary second sound. There has been no pericardial friction-sound. The urine is albuminous. The man's face is pale and anxious-looking, and bears the marks of excessive exposure.

He remained in about the same condition until December 11, when his temperature increased to 101°, and his pulse became more rapid. At the same time, the pain which had been complained of behind the sternum extended to the right side, and there were evidences of a localized pleurisy at that point. During the evening of the 12th he became delirious, wandered in his talk, was restless, and was controlled with difficulty. From that time until the present his symptoms have become rapidly aggravated.

The range of temperature has been as follows. On the evening of the 11th, 101°; by the morning of the 12th, 103.4°; evening of the 12th, 104°; morning of the 14th, 104.2°; evening of the 14th, 104°; this morning (15th) it is 102.4°. With this there has been a corresponding increase in the pulse, so that it is now 160 in the minute, and is a mere thread, extinguished by the slightest pressure,—small, weak, and fluttering.

We have here that horrible form of dyspnœa known as orthopnœa. This man is unable to lie down; no sooner does his head approach the level than he says that he cannot possibly stand it. Indeed, the erect condition hardly suffices to give him any measure of comfort. He would gladly, if he were able, be out of bed sitting in a chair, or leaning forward to give full play to all the respiratory muscles.

Orthopnœa, or, as it literally means, breathing possible only in the erect position, is the highest degree of dyspnœa. It is seen in a marked degree only in cases of sudden attacks of spasmodic asthma, and in very grave conditions of disease.

As to the rapidity of the breathing. The respirations are only thirty-six in the minute. You see that the respirations are rapid, but you observe that the increase does not correspond with the increased pulse, which has risen to 160. You also see that the relation between the respiration and pulse is preserved better than in such diseases as pneumonia. It is not at all rare in bad cases of acute pneumonia to find the respirations go up to 50 in the minute, and in young persons I have counted them when they were 80, and in adults not rarely 60, per minute, and this with a pulse-rate of 130, so that the ratio between the respiration and pulse was as 1 to 2. Where you have this increased frequency of the breathing gaining greatly on the pulse, or, in other words, where you have the pulse-respiration ratio greatly disordered, you will conclude that there is some serious disease of the lung, and that the derangement of the heart is sympathetic. In this case the relation of the respiration to the pulse is as 1 to 4.5. Such a disorder of breathing and circulation is

much more apt to occur when there is some radical failure of the powers of the heart itself, and the disorder of respiration is due, in such cases, not to any disease of the lung of an acute inflammatory character, so much as to secondary engorgement following the heart-failure. We find in the present case with this, I am sorry to say, all the evidences of rapid giving out of the heart-power.

This great difficulty of respiration is attended with a constant rattling sound which is audible over the whole room. It is most marked in expiration. There are submucous and subcrepitant râles all over the chest. These are produced in the bronchial tubes, and are caused by the air passing through watery secretions which he is unable to throw off. We find the extremities clammy and dripping with sweat; the whole surface is pale. I shall now have him carried back to the ward. (The man was then removed.)

Here, then, we have a man who is moribund. He will not live until to-night. That sound is the death-rattle. It is due to the secretion into the bronchial tubes of fluid that he no longer has the power to expectorate. His heart is probably in a state of advanced fatty degeneration. He has the additional trouble of albuminuria, and some acute pleuro-pneumonia, which I have not attempted to examine closely. This complication of troubles in a person with his degenerated system renders recovery almost impossible.

Orthopnœa, when present in any of the diseases of the heart and lung, is a most grave symptom; grave, because it indicates intense derangement of the respiration and circulation; grave, because it compels the patient to put forward constant exertion to maintain the respiration. It is, therefore, not only a sign of the highest degree of exhaustion, but is also a cause of greater exhaustion. When in pneumonia orthopnœa appears, it is an exceedingly bad sign. When it develops in a case of pleurisy, it is an indication for immediate operation.

Its explanation in the present case is not difficult. You will observe that, in all probability, the local inflammation was so trifling that this man would not have been very ill if he had not been in this broken-down state of health. And this illustrates the great dangers to which inebriates are exposed from the supervention of any acute disease or the occurrence of any injury or accident. A man who has healthy habits and is accustomed to live moderately will bear the most serious accidents and violent acute diseases, react against them, and with good care and reasonable nursing will throw them off; but a man who has saturated himself with alcohol, whose nervous system has lost all proper reactionary tone, and whose tissues, probably, are degenerated by the alcohol in the blood, no sooner gets an acute disease or receives an injury than there is great danger of his succumbing to it.

The dangers which are apt to be developed in drunkards, in disease or after an accident, are these. In the first place, the kidneys are apt to give out. The kidneys of a drunkard are always overtaxed, perhaps not to the point of producing organic disease,—Bright's disease in some of its forms,—but there is certainly a state of lowered power, so that when the least additional strain is thrown upon them they will give out and their function will fail. There will then be all the grave secondary results of interference with the depuration of the blood and the system. You will find, therefore, that drunkards who are attacked by disease or who have received an injury will pass into this state with albuminuria and scanty urine, although previous to this they may have exhibited neither of these symptoms.

You see this exemplified in this patient. This man had a pain apparently of a rheumatic character, and came into the hospital to recuperate from his debauches. He complained only of an apyretic attack of pain under the sternum, and of no grave pulmonary symptoms; but while in the house, on the fifth day after admission, the pain increased, and we had the symptoms of the acute stage of a circumscribed pleurisy. This man may have had albumen in his urine previous to this attack, but shortly afterwards albumen was abundant. From that time the symptoms of failure of the kidneys have been marked.

The second danger to which I shall refer is delirium. This occurs in drunkards with great ease, and probably has its roots in the condition of the nervous system, which, in the drunkard, is in a state of habitual irritation and exhaustion. This is true of the motor, emotional, and mental functions. You will find that any disease or injury coming on such a one is apt to lead to irregular nervous action and delirium.

The very condition of the kidneys gives another hint as to the way in which delirium is produced in such persons. It is not rarely of a uræmic character, resulting from the defective kidney-action, defective depuration of the blood, and the retention of poisonous matters in that fluid. As a result we have a delirium of an ataxic character. Here, then, we have two forms of delirium which we meet with in drunkards subjected to an acute disease or an injury.

This man's kidneys, I do not doubt, are pale white, fatty, affected with a subacute form of Bright's disease. This failure of kidney-power has resulted in a sort of slow uræmia. His nervous system is under the sedation of some toxic agent: his intelligence is blunted, and he is in the condition of a man with acute œdema of the lung. You often see this condition developed in Bright's disease without any acute symptoms whatever.

Then, again, we have treated this man from the start on the supposition that he was going to have delirium tremens. The condition of exhaustion and irritation of the nervous system which lies at the root of this state has been operative here, and this delirium might be explained as a mild type of delirium tremens. Whenever a drunkard receives an injury or gets an acute disease, he is liable to have delirium tremens follow. This is constantly met with in the surgical wards of hospitals. A man who has been drinking falls down and breaks his arm, comes to the hospital and has it dressed, is perfectly quiet, but that night he is found rushing around the room and threshing the air with his broken arm in the delirium of mania-a-potu.

Now, as to the condition of this man's lung. We have unquestionably had some little local inflammatory centre, which has probably gone through the lower lobe of the right lung, with plastic pleurisy and partial pneumonic consolidation. Although we have not been able to study the physical signs in this case on account of the râles and his exhausted condition, that is my opinion derived from the high temperature and its rapid development. There is little doubt that with the temperature of 104° there was the development of some pneumonia of the lower lobe.

There is another danger, and that is fatty degeneration of the heart and failure of its power. This presents one of the most serious complications in injury and sickness of habitual drunkards. In these cases you frequently find that the fibre of the heart has undergone degeneration, and that when a strain comes upon it it fails to respond, and sinks into a state of paresis, followed by secondary trouble from engorgement of the lungs. There is then additional labor thrown on the heart on account of the congestion of the lungs, and this is increased if there is consolidation. There is then an escape of serum from the branches of the pulmonary vessels to relieve the passive congestion. This is one explanation of the development of œdema of the lung, with profuse watery secretions in the bronchial tubes.

I have no doubt that the albuminuria is associated with changes in the walls of the vessels which we constantly find in chronic albuminuria, and this increases the failure of the circulation and the leakage of the serum into the lung. Therefore heart-failure, pulmonary congestion, and œdema are to be mentioned among the gravest dangers of these patients.

Our unfortunate patient presents the whole of this series of complications,—albuminuria, delirium, pulmonary engorgement, and œdema,—and with this he has a fatty heart, feeble circulation, and such exhaustion of nerve-power that it is not difficult to say that he is hopelessly ill and to prophesy that his death is not many hours distant.

Now, as to the influence of this upon the treatment. You will at once see that it must be very considerable; and being called to a case of disease in a drunkard you will expect a much more serious case than if the same disease had occurred in an individual who did not use alcohol. The danger which you have to guard against I have mentioned. Now, how will you modify your treatment, say, in a case of pneumonia or a severe surgical injury occurring in a drunkard? This brings us to the very grave question,—than which I know of no other more difficult to decide,—that is, how far the fact that a man has been in the habit of using alcohol in his ordinary condition of health calls for a continuance of the use of alcohol when he is taken ill. This is not a simple question. At first sight we should all say that the stimulus should be continued. If he can bear the stimulus, if he can take food as well or better with the stimulus, if the or-

dinary conditions which we recognize as indicating stimulants—namely, feeble pulse, weak first sound of the heart, prostration of the nervous system, and tendency towards the typhoid condition—are manifested, undoubtedly stimulants should be given, and the more freely because he has become habituated to their use. In this class of patients, however, there is sometimes (and not rarely) an altered relation of the system to stimuli, just as there is to food. You cannot, therefore, follow a routine course in such cases and order a certain amount of stimulus. There are conditions of the stomach, of the biliary secretions, which will contra-indicate the use of alcohol, although the general system and the habits of the patient would make its use desirable. This is not only true of acute disease, but also when delirium tremens appears. It is difficult to consider such cases without considering delirium tremens. You see that this man has been on the brink of delirium tremens, and, indeed, he may have had it very mildly, and you are brought face to face with the treatment of delirium tremens.

Speaking in general terms, I think it safe to say that such patients require alcoholic stimulants. I have a friend who has had a very large experience in the treatment of delirium tremens, occurring as the result of injury and without this exciting cause, and who manages his cases entirely without alcohol with very good success. I mention this—although I cannot fully agree with this gentleman, whose views I highly respect, for I am sure that alcohol is useful, in fact, necessary in some cases—to impress on you the fact that you must study the indications present in each case, and not give alcohol as a matter of course, and if there are contra-indications it had better be omitted.

If you cannot use alcohol, you may substitute some powerful nerve-stimulant. Probably the best stimulant is concentrated stimulating food. Give a carefully-made beef-tea, administered hot and spiced, in moderate amounts at short intervals. This stimulating stomachic food has a very powerful effect upon the nervous system. This can often be administered freely and will be retained in cases where alcohol cannot be used.

In the next place, carbonate of ammonia is a valuable nerve-stimulant. It is well borne by such patients, stimulates their respiratory and circulatory centres, is easily eliminated from the system, as a rule does not irritate the stomach, and is, on the whole, a valuable substitute for alcoholic stimulants, and can sometimes be given with success where the latter would produce irritation of the stomach, would not be absorbed, and would not produce their legitimate results.

Then we have assafœtida, camphor, and valerian. Of these I should be disposed to say that assafœtida and camphor are the most useful: they are both valuable. Assafœtida can be given in suppository; camphor in tincture or pill form.

In many such cases you will find strychnia a useful element in the treatment. In the case of this man I am going to try (although I think that it will not do a particle of good) the effect of hypodermic injections of strychnia, in full doses, at short intervals, to see if they will cause any reaction. With this he shall have full doses of carbonate of ammonia and alcohol.

You get hold of a case of disease in an intemperate person, and you anticipate trouble. What will you do? Absolute rest will be your first injunction: the least exertion or excitement must be avoided. Secondly, the relief of pain. Pain should be carefully guarded against. You should not hesitate to use morphine hypodermically in doses sufficient to control the pain, and then either alcoholic stimulants or stimulating nutriment, combined with stimulants of a more diffusible character, so as to steady the nervous system and anticipate the development of delirium tremens.

In regard to delirium tremens, I believe this condition coming on from the effects of drink without the further exciting cause of acute disease or injury is growing less common than it was twenty years ago. We meet with these cases of two varieties. I do not intend to cover the whole ground of delirium from alcohol, but only to call attention to the two sorts most commonly met with. In one, symptoms of violent nervous excitement, with the preservation of a good deal of muscular strength, occur acutely in a man in comparative health who had been using stimulants freely. I have seen it occurring under various circumstances. It may come on after a straight-ahead, violent debauch, or, much more rarely, in a man who has been drinking to excess, and taking little food, and whose

liquor has been suddenly stopped from some cause.

This is the common delirium tremens, a much milder and less dangerous condition than the second form. Here, the man for the most part has been drinking longer; he has either been drinking steadily for a great while, or has been on a prolonged spree, taking but little food; he has become exhausted from the absence of food, and his nervous system has been terribly exhausted from the overstimulation of the alcohol, and from the powerful reflex irritation conveyed to it from the inflamed mucous membranes. There are often, in addition to this, disorders of the liver and kidney, the performance of their functions being perverted by the huge amounts of alcohol taken.

The man is unable to sleep. He remains for a night or two almost entirely wakeful. Then visions appear to him. He has fancies and hallucinations. These are of an annoying, unpleasant, nasty character. He thinks that he is chased by demons; that he is covered with swarms of vermin; that rats are after him; or he sees grotesque faces around the room which grin and leer at him. Then the power of appreciating that these are only fancies and hallucinations is lost, and they become to him realities, and he passes into a state of violent delirium. The muscular system is exhausted and relaxed, and there is usually marked trembling of the muscles,—delirium *tremens*,—so that the entire frame is in a state of constant jactitation, the voice is tremulous, and the tongue projected with difficulty and vibrating. The surface is, for the most part, pale, clammy, and bathed with sweat. Very often there is derangement of the stomach. There may be vomiting, and usually there is a disgust for food. There may be diarrhœa and jaundice. The urine is scanty, and, if the man has been drinking for a long time, albuminous.

The treatment of delirium tremens is both important and difficult. There is no condition in which we are less able to lay down positive rules; but there are certain general principles which you must apply to meet the indications and peculiarities of individual cases. We may say that quiet, rest, and isolation are necessary. Every noise, every new face, serves as an additional excitement. These patients should be kept in a quiet room, perhaps not in darkness, for in the dark their visions take a more definite form. They sleep more readily in a bright light than in the dark. They must be attended by one or, at the most, two persons, calm, strong, composed, and assured. The patient must be kept in as complete isolation as is possible. If you are practising in the city, you can avail yourself of the special rooms provided in hospitals for these patients.

Their food requires immediate attention. You must see that they are compelled to take suitable food, and it had better be liquid. Strong soups and beef-tea represent about the best form of stimulating food, and will be retained by the stomach when milk would be coagulated and rejected. In addition to this you can use whey from milk coagulated by rennet. Sometimes you can give a raw egg in the beef-tea or milk. In some cases they may be able to take solid food in small quantities, but, as a rule, you will find that strong concentrated liquid food is the best, treating them as you would a patient with an acute febrile affection.

Then they need, in the next place, composure of the nervous system; and here you are met by one of the most difficult problems in the treatment of the case, scarcely excepting the question of how much alcohol should be given: sleep and composure of the nervous system,—how to get them? Perhaps the best method is by the hypodermic injection of morphia, associated with a minute amount of pilocarpin: for instance,—

℞ Morph. sulph., gr. ¼;
Pilocarp. muriatis, gr. $\frac{1}{12}$.

Pilocarpin is used merely to give it a tendency towards the skin and kidneys, so as not to arrest secretion. The system is saturated with poison, the nervous system is in a state of intense irritation, you desire to cause the elimination of the poison, but at the same time you are obliged to give remedies some of which have a tendency to arrest secretion: you therefore combine with these remedies some drug which will promote the action of the emunctories. Pilocarpin is described as a depressor of the heart; but I have used it in many cases, and I have yet to see my first case of serious depression of the heart from jaborandi or pilocarpin. I have used it, it is true, in moderate doses, carefully watching its effects, and repeating the dose only when the indications called for it.

Sometimes morphia will fail. Instead of

producing quiet, the patient becomes more restless; the dose is repeated, but he becomes wilder and wilder. It was in such cases that the bromides of potassium, sodium, calcium, and the like were welcomed, when first introduced in practice, as likely to be exceedingly valuable. I had an opportunity some time ago of using them in a large number of these cases. I found that in some instances they acted like a charm, particularly in the milder types and when the patient was seen soon after the insomnia and restlessness made their appearance. In such cases the bromides would sometimes abort the attack. I think that next to morphia the bromides, in some of their combinations, should be given. (If the stomach is irritable, I prefer the bromide of sodium.) The bromides are somewhat depressing to the heart: still, in this condition I do not think that we need dread their depressing effects, for you are only going to give a few full doses and then continue it in moderate doses. You may give thirty grains of bromide, to be repeated in a couple of hours, followed by fifteen-grain doses every three hours for the succeeding twenty-four hours. This alone, or in conjunction with morphia, will sometimes cure the case.

Chloral was in the same way welcomed as a good remedy in delirium tremens where opium was not successful; but I have always avoided chloral as much as possible, for this drug does possess a depressing action on the heart of a most positive character. In cases where the greatest dangers are from failure of the heart's action I regard chloral as a drug to be used with great care. When I do use it, it is in combination with bromide of potassium or sodium, and in small doses repeated at short intervals. I never give more than ten grains of chloral hydrate with twenty grains of bromide of potassium or sodium, repeated in two or three hours if there are no effects, and then continue them in doses of five grains of chloral with fifteen grains of the bromide in the way which I have mentioned. It may be used by the rectum in the form of a suppository, or by the mouth with opium, morphia, or the deodorized tincture of opium. Chloral may sometimes be used with good results in the form of enema. Where there is irritability of the stomach, and neither food, alcohol, nor chloral will remain in the stomach, an enema of chloral (twenty grains in three ounces of starch-water) will often produce a very quieting effect and be followed by sound sleep. There is no contra-indication to the use of morphia or opium at the same time with the bromides or chloral.

The drugs that I have mentioned are the more powerful sedatives. Then we have such drugs as assafœtida, camphor, valerian, and musk. You will usually depend upon the more powerful drugs; but when these do not act, and the patient passes into a typhoid condition with muttering delirium, a great deal of muscular spasm, and extreme nervous prostration, you will find these latter drugs of marked value.

Your patient then has been treated in the manner which I have indicated; and now the question arises as to how much alcohol you will give him. You are keeping him in isolation, you have removed every source of nervous irritation, you are giving him stimulating food, and you are trying to allay the nervous irritability and secure rest at the earliest possible moment. But before I leave this question of sedation of the nervous system I should refer to the value of counter-irritation. A blister to the nape of the neck will sometimes cause a dose of morphia to produce sleep, when, without the blister, it would fail. When there is marked flushing of the face and cerebral excitement, a blister is of great service. You may, where the patient is not too violent, use cooling applications to the head; or you may place him in a tepid bath for a few minutes, then wrap him in a blanket and put him to bed; or you may sponge him at short intervals with some cooling lotion; or, lastly, you may apply a blister to the back of the neck. You will often find these various plans valuable adjuvants to your treatment.

Now as to the use of alcohol. Here, as in cases of typhoid fever, we must judge by certain indications, only in these cases we are predisposed in favor of alcohol because the man has been accustomed to its use. The force of the heart, the character of the pulse, the condition of the stomach, and the amount of the delirium are the main indications which should govern us in the use of alcohol. In general you would not give a patient full doses at once, but would begin with moderate amounts of the more dilute forms of alcohol: for instance, you would give with the whey a little sherry wine. That with the other treatment

will answer for mild cases of delirium tremens. In some cases where the pulse and circulation are good, the delirium mild, and there is no evidence of the typhoid condition, you may safely omit alcohol altogether; but you meet with cases where there is extreme muscular prostration, delirium of a low muttering type, where the stomach will not retain food but will retain alcohol, the pulse is feeble, the second sound of the heart is weak, and the skin is moist and disposed to be cool: in such cases you must use alcohol freely, because the condition occurs in cases where there has been an excessive use of alcohol in cases of chronic intemperance. This condition does not occur in the first attack, but in the second, the third, the twelfth. In such cases I have given one ounce of cognac every hour day and night for several days, at the same time giving carbonate of ammonia and hot beef-tea, and trying to bring the patient under the influence of opium in the way I have mentioned.

Delirium tremens is, then, an acute systemic disorder. All the functions are deranged. There are disorders of the digestion, of the circulation, and of the nervous system. You will see from this hurried sketch that you cannot pretend to follow a routine method of treatment, but that you must judge each case on its own merits.

[The patient died before night.]

ORIGINAL COMMUNICATIONS.

VIRULENCE OF NORMAL HUMAN SALIVA.

Abstract from a Thesis presented for the Degree of Doctor of Medicine in the University of Pennsylvania.

BY CHARLES CLAXTON, M.D.

THE announcement by Monsieur Pasteur of a "new disease," produced in a rabbit by the subcutaneous injection of saliva from a child that had died of hydrophobia,* and the further experiments of Dr. George M. Sternberg, U.S.A., with normal human saliva injected in the same manner,† suggested to me the further investigation of this subject. I have found it of exceeding interest, and am confident, if studied as exhaustively as its importance demands, it must eventually throw much light upon that most fatal malady, hydrophobia.

When I entered upon this investigation, I mapped out for myself the following course: first, to ascertain whether or not normal human saliva thus injected produced fatal results; secondly, by careful experiments, to discover, if possible, to what element of the saliva its virulence was due; and finally, by an extended series of culture experiments, to determine whether a virus sufficiently modified could not be obtained which would protect other rabbits against the saliva's septic influence, and thus, at least, indicate an immunity from rabies.

In all but the last I believe I have for the most part succeeded.

The culture experiments, I regret to say, I have been compelled to omit, because of the time and constant attention requisite in order to conduct them properly. My experiments were performed in great part as a check upon those of Sternberg; and while, therefore, they are in many respects simply repetitions of his, yet I think there are enough points of difference, both in method and result, to warrant my thus recording them.

In order to provide against errors from this source I have endeavored to keep the animals experimented on in as near their natural conditions, both with respect to food and surroundings, as was possible.

I have confirmed by numerous experiments the fact (demonstrated first, I believe, by Sternberg) that normal human saliva injected into the subcutaneous connective tissue of rabbits produces death in periods varying from twenty-four hours to, in a few instances, three weeks.

Query.—Is a similar result obtained by the injection of other fluids which contain organic matter in solution or suspension?

Ans.—One cubic centimetre of urine injected into four rabbits produced no effect, while the same quantity of putrid fluid from an ovarian cyst containing *Bacterium termo* in abundance killed two small rabbits within twenty-four hours.

I note this fact since it differs from the result obtained by Dr. Sternberg, who injected 1 cc. of putrid urine, also containing *Bacterium termo* in abundance, without producing death. To this may also be added the injection by Sternberg of 1 cc. each of liquid fæces and distilled water (1–10), which failed to kill two rabbits; 1.25 cc. of bouillon undergoing putrefaction and loaded with bacterium termo,

* Comptes-Rendus, Académie des Sciences, 1881.
† National Board of Health Bulletin, April 30, 1881.

which failed to kill a rabbit; 1 cc. of sediment from Baltimore water, consisting of organic débris and organisms, chiefly *Bacillus subtilis*, *Leptothrix bacilla*, *Protococcus*, and a few diatoms and flagellate monads, which failed to kill a rabbit. "On the other hand," says Sternberg, "injections of a small quantity of surface-mud from the gutters of New Orleans during the month of September, 1880, invariably produced fatal results within forty-eight hours."*

Q.—Does the saliva of all individuals, injected in the same manner, produce fatal results and exhibit the same degree of virulence?

A.—In one series of eighteen rabbits injected with the saliva of seven individuals, I obtained fourteen deaths and four negative results. Of the fatal ones,

5 died in between one and five days;
4 " " five and ten days;
4 " " ten and fifteen days;
1 died in nineteen days.

It will be observed here that I differ from Sternberg with respect to what may be considered a possible period of incubation as compared with a negative result. I am compelled to do so from the fact that, even in instances where the rabbit has lived for three weeks, I have found, on making a post-mortem examination, quite the same lesions, though perhaps different in degree, as I had observed in animals which had succumbed in forty-eight hours.

The nature of these lesions I shall discuss farther on.

Q.—To what shall we attribute this difference of virulence in the salivas of different individuals?

A.—Thus far I am able to point out only certain broad elements which it seems to me may possibly serve to explain it,—namely, that two of the gentlemen whose salivas were especially poisonous were, the one Dr. F., a pathologist, and constantly brought in contact with septic material, and the other Mr. W., whose studies have also, though in a far less degree, lain in the same direction.

[NOTE.—Sternberg also experimented with Dr. F.'s saliva, and noted this possibility.]

I have also observed the same remarkable virulence in the residents of tropical countries, as of Cuba and Brazil, as also in the case of negroes, the saliva of which latter race exhibits it to an extreme degree. With respect to Cubans, Sternberg remarks, "The possibility that this septic condition of the secretions of the mouth may bear some relation to the protection which these Cubans and myself enjoy against yellow fever, which is a disease presenting many points of resemblance to septicæmia, has occurred to me. Without at present laying any great stress upon this possibility, I think it worthy of further experimental consideration."

I have also been struck with the fact—which perhaps has but little significance, and yet is worthy of note—that the virulence seems to bear a decided relation to the amount of tobacco used by the individual; that is to say, the saliva of smokers either did not kill at all, or else it killed in an inverse proportion to the amount of tobacco used.

There were, of course, some exceptions to this rule, as, for example, in the case of Dr. F., before mentioned, who is an inveterate smoker. I think a probable explanation of this fact is that the nicotine destroys the septic micrococcus (the existence of which latter I shall endeavor to prove later).

Q.—Does saliva, similarly injected, produce death in other animals?

A.—The injection of 1.5 cc. into two dogs—the one small, the other large—failed to have any effect other than the production of local abscesses at the point of injection. Injection of .5 cc. into two rats gave no result. Sternberg experimented upon chickens, with no result; upon three guinea-pigs, getting two deaths.

Q.—What is the nature of the disease thus produced by the saliva?

A.—I think it is unquestionably a form of septicæmia, as indicated by the symptoms and post-mortem lesions.

After the injection there is a rapid rise of temperature, which in a few hours may exceed the normal by 1.5° to 3° Cent. Subsequently there is a fall of temperature, and immediately before death I have observed it several degrees below normal. The animal ceases to take food, becomes exceedingly weak, death taking place in convulsions.

[NOTE.—Out of all my experiments I have been fortunate enough to witness but two deaths. In both of these instances, however, and in two others of my rabbits,

* Unpublished Report to National Board of Health, February, 1881.

reported by an assistant, the convulsions were frequent and violent.]

With respect to the fact observed by Pasteur and Sternberg, and which is unquestionably true,—namely, that death results still more quickly when the blood from a rabbit recently dead is injected,—I have obtained in one instance such an extraordinary deviation from the rule that I think it worthy of note.

Example.—December 17, injected 1 cc. of blood taken from a rabbit which had been poisoned with the saliva of Mr. R., a Brazilian. Being present at the death of the animal, I made an immediate microscopical examination of the blood, and immediately injected 1.5 cc. of it into a second rabbit. The blood was literally a mass of micrococci, free, in zoöglea masses, and infesting the white blood-corpuscles. Instead of a rapid death, as I had anticipated, this rabbit did not succumb till January 10 following, thus exhibiting an incubation of twenty-four days, which is certainly an unaccountable exception to the ordinary results. The pathological appearances consist of a diffuse inflammatory œdema or cellulitis, situated about, and extending from, the seat of inoculation.

In those cases which have a rapid termination there is either no pus at all or but little, while in those which live for a week or more there are usually cheesy masses. The subcutaneous connective tissue is filled with an exceedingly virulent bloody serum containing immense numbers of micrococci, compound granule cells, fat globules, crystals of phosphates, etc. There is more or less inflammatory adhesion of the integument to the subjacent tissues. The liver is usually congested, though often apparently normal, as is the case with the spleen also.

Sternberg remarks with respect to this latter viscus, "Changes in this organ are more marked in those cases which are of longest duration. In certain cases dark-colored pigment has been found in the spleen, resembling that which has been supposed to be characteristic of malarial fever."

With reference to both these assertions, my observations have led me to a different conclusion. In opposition to the first statement—namely, that "changes in this organ [spleen] are more marked in those cases which are of longest duration"—I would adduce the following:

In one case of twelve days' duration, spleen normal (*i.e.*, not discolored).

In one case of thirteen days' duration, spleen normal.

In one case of eighteen days' duration, spleen normal.

In one case of nineteen days' duration, spleen normal.

While on the other hand,—

In two cases of two days' duration, spleen very dark.

In two cases of four days' duration, spleen very dark.

And with respect to the observation that pigment had been found resembling that supposed to be characteristic of malarial fever, I also believe him mistaken; for, having been struck by the great diversity in appearance presented by the spleen on post-mortem examination, in animals which had succumbed under like conditions, both of tissue and saliva injected, I sought an explanation, and with the following result,—viz., *that it was due to post-mortem change.* I was led to this conclusion from the fact that the "pigmentation" bore a direct relation to the period which had elapsed between the time of death and the time of making the examination. For example: December 12, 1881, a rabbit which had been injected December 5 (seven days before) having died while I was present, an immediate post-mortem examination was made, presenting the following lesions. At the seat of inoculation an exceedingly large diffused abscess extending below the deep fascia, embracing an area of four to five square inches. The pus at the seat of puncture presented the usual microscopic appearance,—compound granule cells, micrococci, etc.; lungs passively congested; right side of heart containing large clot extending into pulmonary arteries; kidneys and liver congested; *spleen small, sharp-edged, and not discolored.* Here, then, we see, in spite of the most strikingly typical lesions, but where an *immediate* examination was made, the spleen was, as my notes made at the time read, "small, sharp-edged, and not congested;" while, on the other hand, when, through any cause, my examination was delayed, I invariably found the "pigmented spleen," and that in a direct proportion to the period which had elapsed between the death of the animal and the autopsy. Moreover, I have demonstrated the truth of this conclusion time after time on rabbits which had not

been inoculated at all, examining some immediately after death and others at periods varying from one to five days. In the former cases the spleen was invariably normal, while the latter presented the "pigmented spleen" markedly and just in the proportion above given.

A consideration of the facts herein presented cannot fail to suggest the identity of the disease produced by me and that produced by Pasteur with the saliva of the child dead of hydrophobia.

This resemblance I am able to exhibit still more strikingly by a few experiments (four in number) which I have been enabled to perform (but, unfortunately, too late to carry out at greater length) with the saliva and blood of dogs which had died of rabies in the dog-room of the University. They were as follows:

December 13.—Injected two rabbits with the blood of a dog dead of rabies. Result: one died December 15; the other, December 17.

December 10.—Injected two large rabbits with 1 cc. of the saliva and buccal mucus from a dog dead of rabies. Result: both found dead on the morning of December 12.

In both of these series the symptoms and post-mortem lesions were identical with those produced by normal human saliva.

I shall now discuss briefly the second part of my argument,—namely, what constituent of the saliva produces the fatal disease? And as my results accord so perfectly with those obtained by Sternberg, and my experiments in this direction are but repetitions of his, I shall be pardoned, I trust, for answering the question in his own words:

"*The following facts demonstrate that the phenomena detailed result from the presence of a living organism found in the saliva, —namely, a micrococcus which multiplies in the subcutaneous connective tissue and also in the blood shortly before or after death.*"

(*a*) *This poison is particulate.* This I have confirmed by a number of filtration experiments. Example: January 26, injected 1 cc. of filtered saliva (filtered through ten thicknesses of heavy filter-paper and packed cotton by means of Sprengel's pump*) into three rabbits, and, at the same time, one-half the quantity of unfiltered saliva into two rabbits of the same size. No harm resulted to the first three, while the two died the next day by 3 P.M.

(*b*) *The virulence of the saliva is lost by boiling.*

(*c*) "*The saliva loses its virulence when kept twenty-four hours in a culture oven at a temperature of 37° Cent.*" (Sternberg.)

(*d*) *The addition of a ten-per-cent. solution of carbolic acid to two parts of saliva destroys its virulence.*

(*e*) *The effused serum from the subcutaneous tissue of a rabbit recently dead produces death, attended with the same phenomena as resulted from the injection of the saliva in the first instance;* but, since this does not contain epithelial cells or salivary corpuscles, these may therefore be excluded as agents in the production of the results indicated. Moreover, these are present in the saliva of all individuals, while virulence to so intense a degree is an exceptional property of human saliva.

In my original paper I entered at some length into a review of the culture experiments performed by Sternberg, which are by far the most powerful argument for my position,—namely, that the virulence is due to a micrococcus. In the present article, however, my intention being simply to record such experiments as I myself have performed, I shall omit it.

It would be exceedingly interesting to discuss the question whether the micrococcus I have found differs from the *Micrococcus septicus* of Cohn and is identical with the organism found by Pasteur in the blood of rabbits killed by the subcutaneous injection of the saliva of an infant dead from hydrophobia: the limits of my paper, however, forbid. I shall therefore, in conclusion, content myself with a description of this micrococcus; and, since its morphological resemblance is identical with that described by Pasteur and that obtained by me by injecting saliva from a dog dead of rabies, his (Pasteur's) description will suffice for both:

"This organism is sometimes so small that it may escape a superficial observation. Its form does not differ from that of many other microscopic beings. It is an extremely short rod, a little compressed towards the middle, resembling a figure 8, and of which the diameter of each half often does not exceed a half-thousandth of a millimetre (0.5 m.). Each of these little particles is surrounded at a certain focus

* Sternberg filtered through a thin stratum of plaster of Paris.

with a sort of aureole, which corresponds, perhaps, to a material substance."

[This aureole Pasteur believes to be due to a mucous substance rather than to diffraction.]

PHILADELPHIA, 1709 SUMMER ST.

A CASE OF CHOREIC NERVOUS DISEASE, WITH ROTATION OF THE BODY AND CATALEPTOID SYMPTOMS.

BY JAS. HENDRIE LLOYD, M.D.,

Nervous Dispensary, University Hospital.

THE following case, which was probably the most interesting of those witnessed at the dispensary during the past spring, presents such unusual and even novel symptoms that it appears to be worth recording. The notes of the case, as taken from the dispensary case-book, and supplemented, are these:

W. I., æt. 8; white; born and resides in New Jersey. Family history: paternal grandfather hung himself; on the mother's side there is tuberculosis. Two years ago, had four attacks of "spasms." Two weeks ago, began to have them again, without known cause, and had from twelve to twenty a day. Three attacks occurred in the dispensary, under the immediate notice of the medical attendants. These were remarkable and always the same, and recurred at intervals of nearly an hour. The boy's head was suddenly drawn upward and to the right to its extreme limits, by the action chiefly of the sterno-cleido-mastoid muscle. The eyes turned also to the extreme right, with slight convulsive (clonic) action, and became fixed in that position, with very wide dilatation of the pupils. In a second or two he began to rotate his whole body to the right, and turned completely around, perhaps ten or twelve times. On some occasions he had fallen down, his mother said, towards the end of the spell. If taken hold of and steadied, which required but little force by the physician, the rotation could be stopped,—though the head and eyes remained drawn,—and the boy's arms could be placed in any desired position. If now he was once more let loose, his body again rotated, while his arms were held up in true cataleptoid rigidity. The whole duration of the attack was from one-half to one minute. The boy was intelligent, and said he knew what was occurring about him while he was in the fit, though he gave no satisfactory evidence of such knowledge at the time. There was no history of headache or of any disease. His ears were subsequently examined and found normal. He had had worm-medicine in abundance from the family physician, without results. There were no psychical traits of importance to suggest foolish or wilful simulation. The only accident had been a fall from a wagon three years previously.

At the second visit the boy was seen by Prof. Wood and taken into the clinic. There had been no improvement (on potassium bromide) since last visit. He had had ten fits since morning, and it was thought very desirable to exhibit his performance to the class. He was accordingly given a chair while the professor attended to his other patients. The boy sat quiet, apparently interested in his surroundings, and not conscious that he was himself the object of notice. At the expiration of a full half-hour, and while the attention of the speaker and his students was drawn to another patient, he suddenly rose to his feet, and exhibited a marked and characteristic fit, just as has been described. Prof. Wood, in commenting upon the case, did not incline to the view of organic brain-lesion. He thought the symptoms were best explained by referring it to that class of ill-defined disorders known as chorea major. Its possible connection with epilepsy was not ignored. As the patient had an adherent prepuce, Prof. Wood advised circumcision, and took pains to explain the operation to the mother. This evidently made a great impression on the child's mind, which is worthy of notice in considering the case. The potassium bromide was continued.

At the third visit, which had been appointed for the operation of circumcision, the mother reported the patient much better. The attacks were less in number (on that day he had had but one), and their character was changed: not so much rotation, but a backward-and-forward jerking motion of the head. The boy had been having great fear of the proposed operation, and now said that he thought he could control the spells. A psychical element was thus distinctly indicated, and its likeness to chorea major to some extent increased. It was thought best, however, instead of circumcision, to break up adhesions and retract the foreskin, which was done by Dr. J. William White.

At the fourth visit, after ten days, a still greater improvement was noted. The boy had had no spell for five days. He had had one or two attacks at night, in which he raised himself in bed, leaned on his elbow, and rotated his head as far as he could. The foreskin had been retracted daily, and was all right; but it did not seem very probable that this operation had been useful except by its effects upon the mind.

In connection with this case, I was led to look into the literature of this anomalous class of cases. I append some of the results obtained.

The *physiology* of rotation and turning is tolerably well ascertained. In 1852

Brown-Séquard published* a concise view of the subject, and summed up the results. Irritation of the thalami, crura cerebri, tubercula quadrigemina, pons, auditory nerve, and parts of the medulla has been found to cause rotation, turning, or rolling. The theory of Henlé was that a convulsion of the eye-muscles caused a vertigo, which produced rotation. This seems to bear upon our case, in which there was convulsive movement of the eye. Brown-Séquard also thinks this an "element of the cause." It is worth while to note, however, that before this time M. Lebret had reported† a case, very curious in its symptoms, in which there was rolling without convulsive action of the eye. "But their great cause," continues Brown-Séquard, "is a convulsive contraction in some of the muscles on one side of the body. These convulsive contractions are to be found in every case of convulsive or rotatory movement. As to the cause of these contractions, it exists in the irritation produced in certain parts of the encephalon." Carpenter believes that circulatory movements are due to a weakening of the sensori-motor apparatus of the opposite side, whereby the balance of muscular power is destroyed. Von Ziemssen says‡ that the diseases here noted are due frequently to "cerebral maladies," by which I suppose is meant chiefly organic brain-disease. Laycock thinks§ that the cerebellum is involved, and that paralysis and loss of balance may be the cause. He gives a case in which rotation of the head was caused by a tumor on the tuber annulare; also of a child with remarkable alternate movements of the head to right and left, with cyst in right lobe of cerebellum containing calculi.

I have already said that our case was likened to chorea major. I may say right here that no term in modern medicine—not even hysteria—is used with looser significance than this word *chorea*. The original chorea—St. John's, St. Guy's, or St. Vitus's dance of the Middle Ages—was a pandemic frenzy, a popular furore, a fanaticism following great social afflictions, as the plague and the overflow of the Rhine; in fact, a true psychological excitement, rushing to all extremes of folly, vice, accident, disease, and even death.‖ The modern chorea was first distinctly described by Sydenham, and may be read, for convenience, in any translation of his works.¶ If the pathology of the disease is not thoroughly known, its symptoms, at least, are generally easily recognized. They are the irregular involuntary or purposeless clonic spasms of the muscles, mostly of sporadic origin, occurring during waking hours, usually in the young, which are familiar to every practitioner,—a very different affection, certainly, from the dancing mania of the Rhine Valley or the *tarantismus* of Italy.

Now, chorea major (or magna, as the Germans have it) appears to occupy a position midway between these two affections. On the one hand there is the suspicion of a psychical origin for most of them, while on the other the action is in a measure involuntary,—*i.e.*, the result of sensori-motor or reflex action, the will having become weak, or perhaps entirely powerless, though it may not have been so at first. For instance, the will may be under the dominion of a morbid impulse, confirmed into a bad habit by long indulgence. Such instances are not rare, but often so insignificant as to escape notice, as a trick or gesture of speech, an habitual grimace, etc. Prof. Wood mentions the case of a man who suddenly seizes his hat and pulls it violently over his eyes. The action is habitual, and the sufferer protests that he cannot help it. Dr. Radcliffe mentions** the case of a young man much resembling that of our rotating boy: "He turned round and round twenty times; he said that the impulse was not altogether irresistible, but that he could not resist the impulse successfully without being much agitated afterwards." Von Ziemssen (*loc. cit.*) has the following: "It is my conviction that the group of symptoms called chorea major is not a disease *sui generis*, but is only the product of genuine psychoses and cerebral maladies on the one hand, and of hysteria and wilful simulation on the other." The distinctions in this passage are not altogether happy or of practical good. Whether chorea major is a disease or the product of disease, *i.e.*, "cerebral maladies" or "hysteria," which is a disease, or a "psychosis," by which is

* Philada. Med. Exam., Aug. 1852.
† Compt.-Rend. de la Soc. de Biologie, 1850.
‡ Ziemssen's Cyc., art. "Chorea."
§ Nervous Diseases of Women.
‖ For some account of a similar and wonderful outbreak in Madagascar in modern times, see a very interesting paper by Dr. Davidson, Edin. Med. Jour., 1867.
¶ The Entire Works of Dr. Thomas Sydenham, newly made English, etc., London, 1763, p. 552.
** Reynolds's Syst., art. "Chorea."

meant an abnormal mental state, the fact remains that we have such wonderful displays occasionally, which the physician is called upon to treat; and it behooves him to understand as well as possible that he has *disease*, or at least abnormal activity, to deal with. If the case be one of mere "wilful simulation," the doctor's duties are few and plain. Rosenthal* takes this practical view of the subject. He enumerates these symptoms: "Patients run, jump, hop, dance, climb, *whirl round*, stamp with feet, cry like animals, exercise like acrobats, declaim like actors, sing, recite poetry (even in a foreign language), etc." He also mentions anæsthesia, paralysis, and *cataleptic* and tetanic symptoms as attending these disorders, and says that consciousness is often clouded. It may be seen that many of these symptoms closely associate the disease to hysteria.

Dr. Andrew Crawford has narrated† a number of cases illustrative of this whole subject, and some of them strikingly like that of the boy which heads this article. One of these cases, a girl 10 years old, rotated like a top with great velocity. She afterwards took to rolling rapidly from one end of a walk to the other; "and even when laid in the shallow part of a river, though at the point of being drowned, she began to turn round as usual."

Another of these cases exhibited a convulsive rotation of the head and trunk. The movements were furious and alarming and of great rapidity. He also mentions a case called *malleatio*, or striking the knees with the hands as with a hammer. Another form sometimes seen consists in making a profound *salaam*.

I described the turning of the head in our case as due to the action chiefly of the sterno-cleido-mastoid muscle, which was in a state of tonic spasm during the fit. It was interesting to find two similar cases in this one respect in the literature of the subject. Tuke,‡ referring to emotion as a cause of chorea, gives two cases from Althaus in which there were contractions of this muscle: (1) the case of a lady with spasmodic contractions of the left trapezius and cleido-mastoid muscles, consequent upon a violent emotion excited by witnessing an accident in the street; and (2) the same disorder in a brewer, following and apparently due to the circumstance that, when driving, his horse fell and broke his neck, which gave the man a great shock.

It may be possible that we have had something more serious to deal with in our case than chorea major. But when we consider the absence of all symptoms of more grave cerebral disease, the unlikelihood of simulation, the fact that the boy got much better in a very short time under the stimulating effect of a powerful mental impression (the proposed operation), and with a minimum of dosing (pot. brom. gr. x t.d.),—when we consider these points, the resemblance of the case to the others I have brought forward is certainly marked. The study is an interesting one, if difficult. "Cases will occur in which it is exceedingly hard to tell whether psychosis, cerebral disease, hysteria, or simulation is before us."§ Every case must have its separate psychical and physical study. In our case the indications seem tolerably clear.

Walnut and Fortieth Sts., West Philadelphia.

* Diseases of the Nervous System.
† Cyc. of Practical Med., Forbes, art. "Chorea."
‡ Influence of the Mind upon the Body, Jour. of Ment. Sci., vol. xvi.

§ Ziemssen, *loc. cit.*

DIABETES INSIPIDUS AND DIABETES MELLITUS.

BY HARVEY L. BYRD, M.D.,

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THE following cases can hardly fail to interest your readers, as they present, by comparison and contrast, the more salient points in the differentiation of the two varieties of diabetes, and the treatment that was successful in each. The family history in both cases appears to have been good, and there were no evidences of acquired predisposition to the disease, either specific or otherwise; and both were young men of originally good constitution, and engaged in active outdoor occupations. They may be regarded as typical cases in more respects than that which the names would seem to imply, and I shall therefore endeavor to bring out their individualities and distinctive features in as prominent outline as the brief space I have allotted to myself in this communication will permit.

Case I. was a man a little over 20 years of age, and of originally good constitution. His average flow of urine exceeded nine pints daily, of a specific gravity of 1005, without albumen, entirely devoid of sugar, and of slight acid reaction. While in the enjoyment of excellent health he discovered a gradual

augmentation in the daily flow of his urine, which went on for some weeks without producing any appreciable evidence of ill health, although he soon found that "his clothes were growing too large" and his appetite was not so strong as formerly. He observed after this that he was losing flesh quite rapidly, and his desire for good, nourishing food grew daily less and less. In five months and a half after his attention was called to the increase in the urinary discharge, he found himself greatly emaciated and so much debilitated as to be scarcely able to walk across the room without assistance. He stated positively that he had never suffered from venereal disease, and had at no time during his recollection received any serious injury to the head or spine, or, in fact, in any part of his body. A careful examination of the heart, lungs, stomach, and bowels revealed no lesion of either of them. He suffered from occasional constipation, but his digestion remained moderately fair, and the thermometer revealed little or no departure from the normal standard. He seemed not to be remarkably thirsty, and, though complaining of some feeling of uneasiness in the small of the back, declared he experienced no actual pain in any part of the body. Opportunity was afforded for observing the difference between the amount of fluids he received into his stomach and that which was passed from the bladder, and they were in striking contrast. Thus, for example, he took into the stomach of fluids of all kinds six and a half to seven measured pints in twenty-four hours, and passed from nine to ten measured pints in the same length of time. These measurements were made and continued for a period of six days, and the resulting discrepancies were uniformly the same. Various articles of diet were used, in order to test their effects, if any, upon the urinary secretions, but without obvious results. His bowels were regulated with the vegetable cathartic-pill compound and elix. bromide of potassium in four-drachm doses, ordered at bedtime to procure sleep and remove restlessness, of which he sometimes complained; and he began taking drachm doses of fluid extract of ergot *ter die*. The quantity of ergot was increased to a drachm four times, and finally six times, in twenty-four hours, until the beginning of the fourth week, when it was reduced to the original amount per day, in consequence of the urine becoming reduced to three and a half pints in twenty-four hours. The bromide was diminished after the first week, and omitted entirely by the end of the second week, and a cathartic pill given *pro re nata*. The ergot was still further reduced in quantity until the end of the fourth week, when it was suspended entirely. At this time the appetite was good, and the general appearance indicated a return to perfect health. The urine was normal in quantity and quality.

Case II. (diabetes mellitus).—Male, between 35 and 40 years of age, laborer, and until a few years ago enjoyed excellent health. About a year ago his appetite was found to have increased very considerably, and with it his thirst was greatly augmented. Notwithstanding, he discovered he was losing flesh. The urine was light and clear and greatly increased in quantity, so much so as to necessitate his passing it five to six times a night; and it was shown by measurement that he voided from twenty-nine to thirty pints during twenty-four hours. He complained of muscular pains and some stiffness in the joints, but the suffering was inconsiderable from these causes. The first examination showed a specific gravity of 1031 and a considerable quantity of sugar. His bowels were opened with mass. hydrarg. and ext. colocynth. comp., each six grains, at night, and castor oil the following morning; and after its action, salicin and bicarb. soda, āā five grains every four hours. Ten days after, the quantity of urine passed in twenty-four hours was thirty-two pints, and contained thirty-one and four-tenths ounces of sugar, and he weighed one hundred and eighteen pounds. The use of salicin and soda was suspended, and arsenic, lactic acid, and opium in large doses were substituted separately and successively, and continued for twenty days, with varying advantage,—*i.e.*, the quantity of urine and amount of sugar increasing or lessening from time to time, until the former reached forty pints and the latter thirty-two and two-tenths ounces in the twenty-four hours. From the very favorable reports of the effects of codeia in diabetes mellitus, the foregoing articles were abandoned and the latter ordered in three-quarter-grain doses three times per day. In a week it was increased to one grain, and in ten days to one and one-half, and in two weeks to two grains t. d. At the end of third week the dose of codeia was reduced to one grain morning, noon, and night, as the amount of urine was nearly normal, the sugar had disappeared almost entirely, and the patient's thirst and dryness of skin had ceased to trouble him. His digestion had improved and his weight increased several pounds in the next fortnight, so that the dose of codeia was still further reduced to one-quarter grain t. d. During the treatment of the case a dose of mass. hydrarg. et ext. col. com., as at first, was given twice a week, and a tepid salt water bath, with the moderate use of the flesh-brush, resorted to once or twice per week until he was entirely well.

In the above typical cases two therapeutic agents stand forth as prominent factors,—viz., ergot in the insipid and codeia in the saccharine variety of diabetes. The effects of these agents, respectively, in the two forms of the disease, *after* the use of other remedies of recognized value had been productive of but

little, if any, advantage, increase their claims to the consideration of the profession. Much credit is due to Prof. Da Costa for bringing ergot so clearly before the faculty.

THE DIFFERENTIAL DIAGNOSIS OF TYPHOID FEVER AND TUBERCULAR MENINGITIS.

BY LAMBERT OTT, M.D.,
Philadelphia, Pa.

MY attention has been called to this subject, at the bedside, by often noticing what a similarity of symptoms existed in the diseases in question in the incipient and more advanced stages. I, with other physicians, have left the bedside of a child presenting symptoms pointing to either disease, in which it was impossible to make a positive diagnosis. In both there are irritability, headache, vomiting, diarrhœa or constipation, loss of flesh, anorexia, and evidences of constitutional disturbances. In the incipient stage, when the child shows this array of symptoms, the physician meets with great difficulty in coming to a definite conclusion. Where the diseases are more advanced,—the case of tubercular meningitis being in a stupor and that of typhoid fever in a somnolent state,—our judgment is ofttimes taxed to decide. From full notes of a number of cases of typhoid fever and tubercular meningitis, ranging in age from 11 months to 8 years, I have formulated the following differential diagnosis:

INCIPIENT STAGE.

Tubercular Meningitis.	*Typhoid Fever.*
There is a gradual loss of flesh, extending over some weeks or months.	Loss of flesh only apparent after fever-process has existed some time.
Irritability more intense and prolonged; restless during sleep.	Irritability not so intense; quieter during sleep.
Shunning light is common.	Absent.
Temperature has no characteristic change; may be high in the morning and low in the evening, or the same morning and evening.	Typical fever-curve; gradual ascent, having low fever in the morning and higher in the evening.
Vomiting causeless, and not connected with ingesta. May find a clean tongue.	Vomiting nearly always connected with curdled milk or repugnant medicine. Coated tongue.
Headache not aggravated at any particular time of the day.	Headache always aggravated, towards evening, when the fever ascends.
Nearly always constipation.	Diarrhœa, as a rule; exceptionally, constipation.
No abdominal tenderness.	Abdominal tenderness and tympanitis.
Pulse of good volume, moderately slow, and occasionally irregular.	Pulse soft, rapid, and never irregular.
No epistaxis.	Often epistaxis.

ADVANCED STAGE.

Tubercular Meningitis.	*Typhoid Fever.*
Irregular temperature curve or no fever at all.	Continued fever, stationary, or ascending gradually with the morning remission.
Now the vomiting generally ceases.	May have vomiting of ingesta.
Stupor is continual, patient not easily aroused, and immediately falls back again into his former state.	Is easily aroused; remains awake for a time and requests drink. Is usually rational during the time of being awake.
Obstinate constipation.	Generally diarrhœa, yellow or brownish stools.
Retraction of abdomen.	Tympanitis and tender abdomen.
Tache cérébrale; sudden and spontaneous blushing of cheek, and of parts exposed to pressure.	Roseolar eruption.
Cheyne-Stokes breathing.	Breathing at times very irregular, quite sighing, but not the rhythmical irregularity. One day regular, and the next very irregular.
Pulse very irregular.	Pulse weak and regular.
Spleen normal.	Spleen enlarged and tender.
Local palsies and local spasms; fixedness of the eyes; unequal or dilated pupil.	No such manifestations.
Extreme tenderness elicited on pressing the femur.	No tenderness on pressure.
Urohæmatin, but no albumen or indican in the urine. (Robin.)	Indican and albumen always present in the urine. (Robin.)

One symptom—that of distress elicited by pressure on the femur—is an incidental

discovery of mine, and came to my notice in the following manner. While examining a case of tubercular meningitis in the stage of stupor, I was desirous of awakening the patient for the purpose of witnessing the mental phenomena. To accomplish this, I surrounded the thigh with my hand and squeezed it moderately hard, which caused the child to utter a piercing scream. As this seemed out of all proportion to the amount of injury inflicted, I repeated the pressure in a less degree, and the same outcry was provoked. Seizing other parts of the extremities with the same amount of force caused no disturbance whatever. I repeated the experiment in a second case, and found a similar manifestation, while pressure on other parts produced no such effect.

PHILADELPHIA, 1601 COLUMBIA AVENUE.

A CASE OF PROCTITIS AND PERITONITIS FROM RHUS-POISONING OF THE BUTTOCKS.

BY GEORGE B. DUNMIRE, M.D.

ON August 19 Mrs. C., æt. 30, with her family visited the East Park. In the evening, returning by way of a bridle-path, she had occasion to evacuate her bowels, after which the absence of paper was supplied by the abundance of foliage within her reach. Two days after this the woman's husband came to get a prescription to "kill poison." (I visited the place in the East Park, vicinity of the Dairy, and there found abundance of the Rhus toxicodendron.) August 22, four days after the handling of the leaves, I was called to see her. She was suffering from an eczematous eruption upon the skin. The sense of burning, the violent itching and swelling at times peculiar to it, with the pain, heat, fever, and vesication attending, she characterized as "awful." It had begun near or about the nates, extending over the vulva, which was greatly tumefied and painful, with a purulent discharge from the vagina. From these parts it spread all over the body, first on the face, evidently owing to the discharge from the primary trouble being carried by the hands. The face and lips were swollen so as to change the features, and what seemed new to observation was that the mucous membrane of the mouth and throat was inflamed and painful. From all these annoyances, so restless did she become that scarcely for a moment could she be still, much less sleep.

Notwithstanding the remedies, which gave some relief, on the morning of the 1st of September (twelve days after the exposure) the poisonous action was still active, but had taken on a slow erysipelatous condition, particularly upon the hands, arms, and hips, and would not be headed off by frequently-repeated applications of tincture of iodine. At this time the patient complained of an uneasy feeling in the rectum, and also of bearing down, as if wanting to have an evacuation. This feeling was not relieved even after a large enema of sweet oil. So violent did the tenesmus become during the day that a neighboring woman insisted that she must be pregnant and aborting, and the doctor must be sent for. Hypodermic injections of morphia and suppositories of extract of hyoscyamus and opium had to be repeated to control the symptoms through the night.

Morning of September 2 the patient was found lying on her back, totally indifferent to her other trouble, with thighs flexed upon the pelvis. Great pain and tenderness over the bowels, particularly so on the left side, which afterwards extended over the abdomen. The lightest pressure would produce pain. The pulse and temperature high, having had a chill in the night. Opium was freely given, and locally turpentine stupes and poultices of oat-meal made with acetic acid and alum were applied constantly.

On third day of this abdominal trouble the pulse was quick and small, temperature lower, some anxiety of countenance, and sick stomach. These symptoms occasioned some fear for the result of the case. After more than five weeks from the beginning of the rhus-poisoning, the patient recovered.

Because of the dangerous character of the later trouble, the skin affection was lost sight of, but greatly improved, the skin desquamating in large flakes.

Was this not a case of proctitis and peritonitis by contiguity of tissue by way of the pelvic organs,—a peritonitis which seems most amenable to treatment, and resulting, too, from the poisonous toxicodendric acid?

DR. JOSEPH HEARN has been elected one of the attending surgeons to the Philadelphia Hospital.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

SERVICE OF H. C. WOOD, M.D.

Reported by JAMES P. TUTTLE, A.M., M.D.

CONTRACTURE OF A SINGLE MUSCLE FROM SPINAL INJURY; RELIEVED AFTER SIX YEARS—EPILEPSY FROM CICATRICES—SOFTENING AND BREAKING DOWN OF INTERNAL CAPSULE AND LENTICULAR BODY, PROBABLY FROM EMBOLUS.

T. M., æt. 28, Irish, groom; was always healthy till the accident which produced his present trouble. He drank some, but not excessively, before this time. Six years ago, while training a horse in Ireland, he was thrown off by the animal jumping a stone wall. Falling near the wall, a stone displaced by the horse's hoof struck him on the back of the neck in the region of the sixth and seventh cervical vertebræ.

He was never unconscious, but was completely paralyzed from the shoulders down for several months. His urine was drawn for three months, but control of the bowels, which was at first lost, was soon restored.

About seven months after the accident he began to move his right leg a little. Soon afterwards some motion of the right arm was restored, and gradually he improved, until, the ninth month from his injury, he was able to stand and walk a few steps. It was two years before he could resume his work at all, and then he was compelled to give it up on account of his inability to open and shut his left hand with any ease. He was treated for this in a Dublin hospital, and afterwards by his family physician, but without success.

When admitted to this institution, he was suffering from a slight lumbago, which was soon relieved by appropriate means. At the same time he complained of inability to open fully his left hand. Close examination revealed the following condition.

There was slight, if any, loss of power in the hand or arm. The patient could extend the hand if the fingers were flexed, or the fingers if the wrist was flexed, but he could not possibly extend them both at once; and the partial opening and closing of the hand, which by effort he could accomplish, was so slowly and imperfectly done as to render the hand of little use to him. Directing him to extend the hand and fingers as far as possible, the flexor profundus digitorum was found to be tense, hard, and inextensible from its origin to its insertion. Otherwise he was perfectly healthy, beyond a slight tenderness in the post-cervical region.

Iodide of potassium, arsenic, and mercury were tried separately and combined; the arm was rubbed with stimulating lotions, and the battery systematically applied for seven weeks, but with no improvement. As a last resort before tenotomy, the forearm was bandaged, with hot poultices to the contracted muscle, for four days, and then well wrapped in cotton batting for one week, daily effort at forcible extension being made, and the patient instructed to flex and extend the hand and fingers constantly during the day. At the end of this time he was able to get them almost straight with effort, and the poultices were reapplied for two days, but without a marked improvement. Under continued effort of the patient and the use of the faradic current to the extensor muscles of the hand, the patient slowly improved until the third month, when he was discharged able to extend his hand almost straight and with a moderate degree of rapidity. He has since been seen, and is using his hand with much satisfaction to himself, the cold affecting it little more than it does the other.

Case II.—T. N., æt. 50, Ireland, carriage-driver; has been a hard drinker, but was always healthy until five years ago, when a team ran away with him and threw him off his carriage upon the pavement-corner. His right leg was broken and his scalp was cut in several places in the right superior parietal and occipital regions. He was unconscious for two days, and when he recovered consciousness he was unable to use his right arm or leg, and had the sensation of pins and needles sticking in them. The paralysis passed off in about five weeks. He said his memory and power of speech were much impaired from this time forward, and, indeed, they were found quite deficient on admission to the hospital. During the following three years he had several "spells," and a year ago he began to have epileptic paroxysms, which increased in frequency until they occurred once every month, and sometimes much more frequently. Four weeks ago he had one on the street, and, falling, hurt his leg so that he was sent to the surgical ward of this hospital for its treatment. While here he had two paroxysms, and as soon as able was transferred to the nervous ward. Subcutaneous section of the cicatrices was at

once decided upon, and done on the 4th of February. The scalp was kept freely movable by daily manipulation, and the patient recovered from the operation without a single bad symptom. From the day of the operation there was never a sign of a paroxysm, and the patient was sent to the almshouse department some four weeks later, feeling better than he had for four years past. Here he remained three weeks without an attack, and died very suddenly while taking a bath one day. The attendant avers that there were no convulsions or rigidity when he found him, less than two minutes after he (the patient) entered the bath-room; and his physician, who saw him some few minutes later, found no evidences whatever of an epileptic convulsion. The case was greatly improved, if not *cured*, and that, too, by the operation, as no medicines of any description were given him for nearly four weeks after it.

Case III.—M. J., female, colored, domestic habits; had always enjoyed good health until November 15, 1881. At this time, while talking to a friend, she felt a slight pain in her head, and suddenly lost power and control of her left arm and leg. Her mouth was drawn up to the left; she was never unconscious, and when she was admitted to the hospital the above condition of hemiplegia was found to exist. Sensation was not impaired, but the power of motion in the left side was completely lost. Patellar tendon reflex was exaggerated on the *left side*, but remained about normal on the right. There was no ankle clonus present. The area of cardiac dulness was slightly enlarged, and there was heard a strong mitral murmur upon auscultation. She remained in the wards under tonic treatment and the iodides, but without improvement, until January 15, 1882, when she suffered from an acute attack of catarrhal pneumonia. From this she soon recovered, and on the 19th of February began to suffer with the heart-affection from which she died some four days later.

A post-mortem held twenty-two hours after death revealed the following conditions. Slight pericardial effusion; antemortem "chicken-fat" clots in the right side of the heart, one of which extended from ten to twelve inches into the pulmonary arteries. Quite a large organized clot was found in the left side of the heart. There was great thickening of the *mitral* valves, but nothing wrong apparently with the semilunar or tricuspid. There was a small cavity in the apex of the right lung, probably due to the breaking down of an old capillary bronchitis, as there were no other evidences of phthisis present. There was no meningitis, but the arteries at the base of the brain were bleached and presented numerous points of yellowish thickening, especially upon the right side. One of these atheromatous points amounted to almost occlusion of the right middle cerebral artery just before its entrance and division in the fissure of Sylvius. There was found upon the right side of the brain a cavity formed by softening and breaking down of nervous substance in the *posterior portion of the internal capsule and lenticular body*, about one and one-half inches back of the anterior border of the caudate nucleus and one-quarter inch below the floor of the lateral ventricle. The cavity was about the size of a hazel-nut, and circumscribed by a centre of softening involving the entire breadth of the internal capsule and lenticular body, and also the posterior portion of the crus cerebri of that side. The mode of occurrence and the nodular, atheromatous condition of the cerebral vessels render it more than probable that the lesion here was embolic. It is interesting to note, also, that there was no atheroma of the aorta or other vessels in the thorax.

ALLGEMEINES KRANKENHAUS, WIEN.

SERVICES OF PROFS. SPAETH AND BRAUN.

Reported by Dr. W. W. JAGGARD.

FOUR CÆSAREAN SECTIONS.

CÆSAREAN section, even in Vienna, is an operation of so rare occurrence that it always attracts attention. During the past month so many as four operations have been performed. Three occurred in the service of Prof. Josef Spaeth, one in that of Prof. Gustav Braun.

I. The first operation—"*Porro's sectio Cæsarea, with supravaginal amputation of the vaginal portion, and Müller's modification*"—was indicated by a high degree of pelvic contraction, resulting in the production of the pelvis of Robert, and has eventuated in the entire recovery of the mother. About the third week after the operation the child died in the Foundling Hospital. This news, inadvertently con-

veyed to the mother, caused a temporary fluctuation of temperature, which lasted two days. With this exception, the temperature did not rise above 37.5° C.; the pulse did not reach greater frequency than 70 during the entire period of recovery. A small quantity of bloody mucus was daily discharged from the vagina.

Upon the day following the operation, consecutive hemorrhage from the pedicle in the abdominal wound occurred, which was promptly arrested by tightening the chain of Billroth's écraseur, which was left around the stump in the abdominal incision. The consecutive hemorrhage and the slight rise in temperature in the third week were the only unfavorable symptoms occurring during the last month.

The present condition of the patient is all that can be desired. The wound in the abdominal parietes is healed entirely, with the exception of a small point, one-eighth inch square, in the lower angle, which is granulating. She eats with relish the regular full hospital meal, though she is still in bed.

II. Prof. Spaeth's second operation was performed upon a dead woman, in accordance with the Austrian law. The oldest law which forbids interment of a pregnant woman before removal of the fœtus from the uterine cavity is the "Lex Regia" (673 B.C.). The Austrian law decrees as follows: "Upon women dying in the second half of pregnancy, in conformity to existing laws, Cæsarean section, with all the caution and attention as upon living pregnant women, must be performed, in order, if possible, to save the fruit, or at least, with those of Christian faith, to be able to recognize it as living and to baptize it." (1798.)

The law commands that Cæsarean section shall be performed upon the dead, but not upon the apparently dead or dying, and does not speak more particularly of the time at which the operation must be undertaken. The death of the woman must be demonstrated by absolute suspension of respiration and cardiac action; after which the physician must explore the vagina and ascertain accurately whether the os uteri has not opened during death, or at least become dilatable, so that by the application of the forceps, or by podalic version with subsequent extraction, the birth of the child in a natural way may be secured. If these means are impracticable, sectio Cæsarea must be performed.

When there is the least doubt as to the apparent death of the mother, even if the fœtal heart is heard to beat, sectio Cæsarea for the benefit of the child to the detriment of the mother can never be undertaken.

Nehr, Peu, Trinchinetti, Bodin, Fraak, Rigadeaux, D'Outrepont, Härlin, and Hohl have recorded cases of Cæsarean section upon apparently dead women, who awoke during or some hours or days after the operation.

The patient in the present case was a white woman, 35 years old, multipara, in the eighth month of pregnancy. She was slightly paralyzed in the right upper and lower extremities, with contraction of hand and foot. She had been for years epileptic. Forty-eight hours before her death she had a convulsion, which the nurse supposed was an epileptiform seizure and paid no attention to it. The convulsions became more frequent and severe, until eclampsia was suspected; and upon investigation of the urine it was found to be albuminous and loaded with casts.

The convulsions in the last twenty-four hours, occurring at intervals of ten minutes, were severe, but were controlled by chloroform inhalations and hypodermic injections of morphia. The fœtal heart could be heard beating regularly until within sixteen hours before death, at which time the amniotic fluid became discolored and offensive.

A final convulsion completed the history, and respiration and cardiac action were found absolutely suspended in the mother's body.

The os uteri was found undilated and not dilatable. Cæsarean section was at once performed as carefully as upon a living body, resulting in the extraction of a dead fœtus with commencing maceration. After sewing up the abdominal incision the body was watched until decomposition had set in, and forty-eight hours after the operation, in conformity with the law, was buried.

Horwitz and Garezky have collected 379 cases of post-mortem Cæsarean section, in which 308 children were born dead, 37 with signs of life, 34 (11 per cent.) actually living; of this latter number only 5 (1 per cent.) survived.

Experiments upon animals have estab-

lished the facts that the fruit survives the sudden death of the mother; that the extraction in the first six minutes gives hope of a living fœtus, between six and ten minutes a slightly asphyxiated one, between ten and twenty-six minutes a profoundly asphyxiated product, which will die; that the products of conception often, in the first minute after the death of the mother, die; that the method of death of the mother exercises an important influence over the duration of life of the fœtus, that death of the mother through swiftly-working poisons has a more favorable influence upon the fœtus than from other causes, and that in all most different causes of maternal death the fœtus is asphyxiated.

III. Prof. Spaeth's last Cæsarean section, occurring one week ago, was especially interesting. The patient, 35 years old, white, native of Lower Austria, multipara, became pregnant towards the close of last summer. During the entire term she noted the persistence of the menses. In last January, after coitus, her husband called her attention to a very severe hemorrhage, which otherwise, so far as subjective impressions were concerned, was not noticed by the woman herself. At no period was any pain felt in the uterine region. She applied for admission into the hospital on account of the frequently recurring hemorrhages from the genitals, as well as to be delivered.

Examination by abdominal palpation revealed twin pregnancy in the eighth month. Vaginal examination revealed a large, very vascular cauliflower cancer of the cervix uteri, infiltrating the fornix vaginæ. The tumor, the size of a large clinched fist, had obliterated every trace of the cervical canal and caused considerable distention of the vagina.

Cæsarean section was decided upon at as early a period as practicable,—*i.e.*, when labor-pains would be sufficiently active to secure uterine contraction if the old method of operation should be selected.

Two weeks after her admission into the hospital the feet were noted to swell, while shortly later general anasarca obtained. The urine became albuminous, and contained a few casts. A condition of intense hydræmia followed, with the production of a typical cachectic skin.

During the last two weeks of her stay in the hospital she suffered considerable pain apart from those peculiar to her pregnant condition. Upon last Saturday labor-pains became suddenly severe, and the operation was at once performed.

Dr. Ehrendorfer, second assistant, operated, while Profs. Spaeth, Gustav Braun, Weinlechner, and Salzer assisted.

After chloroforming the patient, the external abdominal incision, extending from os pubis to umbilicus, was made slowly; the peritoneum was carefully slit up and down with a blunt-pointed episiotomy knife; the uterine tumor, coming into view, was rapidly incised from fundus to orificium internum, while the entrance of foreign matter into the peritoneal cavity was prevented by compression of the abdominal walls around the uterus. Müller's modification was not employed. The children were rapidly removed through the incision, considerable difficulty being found in the extraction of the second, which was already engaged in the pelvis: the presentation was a double breech. When the placentæ had been removed, a rubber tube was applied around the supravaginal portion, made taut, and the uterus lifted out of the abdominal cavity; firm contraction of the organ was obtained by Prof. Spaeth grasping it and squeezing it with rapidly renewed ice-cold thymol cloths. The uterine incision was sewed up with five deep, four superficial, *catgut stitches*, largest size of Lister's antiseptic chromic acid ligature. After the uterus was firmly contracted, the rubber tube was removed and the organ returned to the abdominal cavity. Owing to the favorable attachments of the placentæ, and the employment of the rubber tube, no hemorrhage of any degree had occurred. As the amniotic fluid had all escaped through the abdominal incision, the *toilette* of the peritoneum was simple and quickly performed. Hypodermic injections of Bombelon's ergotin appeared to aid materially in securing uterine contractions while that organ was outside of the abdominal cavity.

The abdominal incision was sewed up with silk suture covered thickly with iodoform powder. Over the iodoform a mackintosh was placed, and over this rapidly renewed ice-cold thymol compresses were applied. These compresses were constantly renewed, until the uterus was felt as a firm round ball in the abdominal cavity.

The pulse of the patient seemed better after than before the operation, while temperature and respiration were normal.

Before putting her in bed, the vagina was thoroughly douched with carbolic-acid water.

The children were extracted living, and crying lustily. They were males, each weighing 1450 grm., one 45 cm. in length, the other 40 cm.

Symptoms of peritonitis developed themselves late upon the day of the operation in the mother, and forty-eight hours later she died.

The autopsy was surprising in its revelations. Every catgut suture in the uterine tissue was found untied and straightened out, while the wound was open and gaping, the lochial discharges having escaped into the peritoneal cavity. Prof. Weinlechner tied the original knots in the catgut with especial care, so that improper application could not be adduced as palliating the inefficiency of the catgut. The cauliflower carcinoma was found to have reached the orificium internum, infiltrating the vagina; the abdominal lymphatics were enlarged, many of them presenting carcinomatous appearances.

IV. Prof. Gustav Braun's recent Cæsarean section was performed under the indication of a pelvis contracted in all diameters, the patient being a dwarf. Porro's supravaginal amputation of the vaginal portion was modified in one or two particulars. After amputation of the vaginal portion, the stump was transfixed with silk sutures, thoroughly cauterized with Paquelin's thermo-cautery, and dropped back into the abdominal cavity.

The patient died the same day, of consecutive hemorrhage.

In all abdominal operations the carbolic acid spray has been set aside by Profs. Billroth, Carl and Gustav Braun, and Jos. Spaeth.

UNIVERSITY HOSPITAL.

SERVICE OF DR. WM. GOODELL.

Reported by Dr. THOS. D. DUNN, Resident Surgeon.

TWO LARGE OVARIAN TUMORS.

CASE I.—Mrs. O., æt. 31, married, and has two children, the youngest of whom is 3 years of age. Ten years ago she first noticed tumor of abdomen; but it did not materially increase in size until after the birth of last child. She menstruated regularly, and suffered no pain. When admitted into hospital (February 8), she could not walk without assistance. She was extremely emaciated, nervous, and excitable; expression haggard; skin dark and clammy; lower extremities cold and œdematous; pulse feeble and rapid; respiration shallow and frequent; measurement around abdomen sixty-one and one-half inches; from ensiform cartilage to symphysis pubis forty inches; height sixty-five inches. Two days later it was removed. The tumor consisted of one large mother cyst, with numerous child cysts of right ovary, filled with colloid fluid. It had not been previously aspirated, and there were but few adhesions. Abdominal walls were very thin, and belly was left exceedingly scaphoid. Base of thorax was so enormously expanded by pressure of growth that apex-beat of heart could be felt under and a little to left of posterior surface of ensiform cartilage. The fluid with sac weighed one hundred and twelve pounds; woman, with dressing and clothing, seventy-five pounds. Pulse and respiration improved with the evacuation of fluid. The highest temperature was 100.4°, the second day after operation. The recovery was rapid, and she was discharged on the twenty-first day after operation, weighing ninety pounds. She wrote four weeks afterwards that her weight was one hundred and nine pounds, or a weekly gain of about five pounds.

Case II.—Mrs. M., æt. 30, married, and had four children. March, 1878, began to have pain in right ovary, but tumor did not appear until one year ago. Menstruation ceased at the same time. It was aspirated in November, again in February. When admitted (March 23), her condition was wretched: pulse rapid and almost imperceptible; pale and emaciated; belly enormously distended; extremities cold but not œdematous. Scarcely was operation begun when pulse and respiration failed. Subcutaneous injections of ether, alcohol, and brandy were repeatedly required. The tumor was an enormous racemose multilocular cyst of right ovary, several of which burst during retraction into cavity of abdomen. Owing to hemorrhage from bad hepatic, omental, intestinal, and parietal adhesions, a drainage-tube was required. The tumor weighed about eighty-five pounds; woman, seventy pounds.

She did very well until fourth day, when temperature rose to 105°; pulse, to 150. The fifth day, temperature and pulse the same, left parotid greatly swollen, and a

marked tendency to diarrhœa. A few days later, the parotid abscess opened in ear, and an external incision was also made. Digitalis, brandy, and quinia were given freely, and her condition commenced to improve. She left the house April 9, convalescing.

The interesting feature of the case is the rapid improvement after marked symptoms of blood-poisoning. In both cases the spray was used and Listerism observed in detail.

NITRO-GLYCERIN IN PUERPERAL CONVULSIONS.—A very interesting and instructive case is reported by Mr. W. E. Green (in the *British Medical Journal*, April 22), in which the internal administration of nitro-glycerin was followed by very good effects. The case, a primipara, had been in labor for some time, and in consequence considerable anxiety was felt. The physician was finally summoned, with the request to go immediately, as the patient was in convulsions. He says, "On my arrival, I found her lying on the floor in convulsions, which, however, were less violent than they had been. On their first appearance, the midwife had, with considerable presence of mind, applied sinapisms to the calves of the legs and to the nape of the neck: the patient had been convulsed an hour. I had her placed in bed, and, finding the head of the child well down upon the perineum, I requested Dr. Barker (then present) to apply the forceps and deliver at once. The removal of the placenta was followed by a short rush of blood, which soon stopped. The convulsions had ceased before the application of the forceps, but the unconsciousness remained. The pulse was quick and of high tension; the face and eyelids puffy; the legs œdematous, and pitting deeply upon pressure, whilst the feet were cold. Leaving the case in charge of my partner, I ordered a mixture containing eight minims of a solution of nitro-glycerin (one per cent.) in an ounce of water, with instructions to give a teaspoonful every hour until the evening. The first dose was given to the patient about two and a half hours after the commencement of the attack, the coma being then as profound as at any time: within ten minutes of taking it, the patient regained perfect consciousness, and asked questions about her confinement and child, of which, till then, she had been oblivious. Four or five doses of the mixture were given, and when seen again during the evening she had a soft quiet pulse, and was quite comfortable in other respects. The first urine we were able to obtain showed, upon examination, at least two-thirds of albumen; and upon inquiry we found that this secretion had been scanty for some months, and that there had been also considerable anasarca of the lower extremities. The patient made a tedious recovery, and it was fully six weeks before all trace of albuminuria disappeared. The pulse-rate and temperature remained abnormally high for some time, and at length it was necessary to wean the baby; after which the patient's progress was more rapid, and at the present time she is in better health than she has been for years."

SMALLPOX IN BIRDS.—Dr. Hewson, of Philadelphia, claims that he has traced this disease to the English sparrows' nests. The senior editor of the Pittsburg *Medical Journal* has seen the eruption of smallpox among the poultry of a family he was attending for that disease, in 1849. The disease was manifested principally on the head and comb of the fowl, and the parts beneath the bill not covered with feathers. These parts were covered with pustules resembling those met with in the human subject, closing the eyes and swelling the head to double its former size. The disease appeared to be contagious, and was quite fatal.

The *British Medical Journal* contains some very excellent remarks on this subject. In a recent publication issued by the Washington Board of Health, attention is drawn to it. It stated that in Europe and Hindostan variola is so common in pigeons and poultry as to constitute a veritable plague. Thus, Guersant records that out of a dove-cot of one thousand scarce one hundred could be found that did not bear marks of the disease; while Tytler says the poultry-yards in India were habitually depopulated by the plague. Bechstein and others claim that it is the true smallpox derived from the human being, and conveyable back to man; while others, like Foggia and Gilbert, assert that it is communicable to the sheep. That this affection has not been recognized may be due to a difference in the environment which modifies the infection, or perhaps to the fact that men and pigeons do not live so much in common here as in Italy and India. Such an occurrence under Italian skies should, however, demand a careful investigation into the reality of such affection in the United States (and especially in the Southern ones) during the prevalence of an epidemic of smallpox, so that whatever danger arises from this source may be detected and guarded against.—*St. Louis Clinical Record.*

MEASLES AT PLAINFIELD, N.J.—An epidemic of measles has been prevailing in Plainfield, New Jersey, remarkable for the great number of cases, the number reported being as high as 1000, out of a population of 12,000. Only eight or ten deaths have thus far occurred, however, and the disease seems to be dying out. The disease has prevailed also in other New Jersey towns to an alarming extent.

DR. GRAY, of Utica, has sufficiently recovered to be out, and his would-be assassin has been legally decided to be insane.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 17, 1882.

EDITORIAL.

TESTIMONIAL TO PROF. JOSEPH LEIDY.

ONE of the unhappy features of our system of government is that there is no pension-fund wherewith to reward great achievements in science or literature and to aid in maintaining him who has spent his labor and life for the good of others. In the case of the late Prof. Henry, private munificence did what it should be the function of government to perform. A large sum of money was raised among the patrons of science and put into trust, the interest to be yearly paid to the family of Prof. Henry so long as any of them should live, and, at the decease of the last child, the principal to become an endowment, under the charge of the National Academy of Science, for the aiding of original research.

There is in this city a man whose direct contributions to science have certainly been more abundant than those of Prof. Henry, whose fame is world-wide, whose life has been spent in working out knowledge, not in quarrying gold and silver, and who now approaches the time of life when in England the civil service fund or some government sinecure would enable him to spend all of his remaining hours in the use of his trained faculties for research. For thirty years Professor of Anatomy in the University of Pennsylvania, and, in addition, during the last twelve years the incumbent of the chair of Natural History in Swarthmore College, surely the time has come when Prof. Joseph Leidy ought to be relieved of all elementary teaching, and have a sufficient secured income to relieve him of all pecuniary care. To do this, it is proposed that the sum of one hundred thousand dollars shall be raised, the interest of which shall be annually paid to Prof. Joseph Leidy during his lifetime, and after his death shall be applied in perpetuity to the maintenance of the Joseph Leidy Chair of Anatomy in the University of Pennsylvania.

Subscriptions to this fund will not be binding until the amount of twenty-five thousand dollars is secured, although it is hoped they will be paid promptly, as they will then be invested immediately and become effective. Subscriptions may be made payable during the present year, or in two annual instalments.

All subscriptions should be sent directly to William Pepper, M.D., 1811 Spruce Street.

A GROSS PROFESSORSHIP IN JEFFERSON COLLEGE.

THE endowment of a Chair of Pathological Anatomy in honor of Samuel D. Gross, Emeritus Professor of Surgery in the Jefferson Medical College, has been attempted by the Alumni Association of the school, and we hope it may be successful. It is a project which has been under consideration by some members of the Alumni Association ever since the resignation of Prof. Gross was announced. At a social meeting of the executive committee, held May 23 at the College of Physicians, at the suggestion of Prof. Da Costa a resolution was adopted appointing a committee to bring the subject before the Alumni Association. A special meeting of the Association was held on May 30, to which all resident graduates of the school were invited, which was also at the Hall of the College of Physicians. Dr. Addinell Hewson presided at the meeting, which was well attended, and the members present seemed unanimously and enthusiastically in favor of paying such a well deserved honor to Prof. Gross.

The executive committee of the alumni also reported that the sum of two thousand dollars was promised by an alumnus at a late meeting of the executive committee as soon as the fund should reach eight thousand dollars.

Dr. R. J. Dunglison was authorized to receive subscriptions until the appointment of the trustees.

From the spirit manifested by those having the matter in charge, and the warm reception given to the project by the friends of Prof. Gross and the school, there can be no doubt that this endowment fund will soon be subscribed and offered to the trustees of the College. If accepted by them, —of which there is little question,—it is evident that a movement will next be made towards endowing all the remaining chairs in the College.

CORRESPONDENCE.

THE AMERICAN MEDICAL ASSOCIATION.

St. Paul, June 9, 1882.

THE American Medical Association completed its labors this morning, after a session remarkable for its numerical proportion, the attendance of delegates and members being unexpectedly large. The estimate had been based on a prospective gathering of four or five hundred; but when the registration closed, the magnificent total of nine hundred and fifty-three had been reached. It must not be supposed that the promotion of medical science was wholly the moving cause of so extraordinary an incursion into this thriving town of the great Northwest, giving to this annual meeting of the Association the distinction of being the largest convention ever held by it, excepting only that at New York in 1880. The two elements of this numerical success were the expectation of a square fight on the question of ethics,—if we may employ such language,—and the promises so lavishly guaranteed of railroad transportation gratuitously to the extreme limits of civilization northward and northwestward. Railroad-passes to members and their families—representing perhaps to each individual in value a sum of forty or fifty dollars, and conveying them to regions hitherto deemed too remote for their wildest imagination—had been freely offered by the different companies; and Manitoba and the Yellowstone will now become familiar to fifteen hundred or more representing the medical profession, and the wives and daughters of medical men, to whom they were known only by name, and scarcely at all by geographical position. I cannot say with any definite knowledge what was the scientific character of the various papers presented in the Sections, or of the discussions which they elicited. Many of the well-known frequenters of these annual meetings were absent, probably on account of the distance; and the calibre of the new element introduced into the Association representative of the Northwestern States was probably exhibited to advantage, as the earnest professional laborers in the field of practice were here, ready to communicate their fruitful experience, just as they are always present at every Association meeting.

Those who came to St. Paul in the expectation of witnessing a combat of words and a collision of forces upon the issue offered by the supporters of the New York Code must have been disappointed at the quiet manner in which, under the organic law of the Association, such anticipated troubles were dispelled. The Judicial Council was originally instituted with the view of having referred to it for final settlement all subjects of dispute that might otherwise ruffle the calm serenity of the sessions of the general body. All protests against individuals or associations are at once referred to it, and its decision is conclusive and without appeal. The Committee on Credentials were therefore fortified by the adverse decision of the Council to reject all those who presented themselves as delegates from the State Society of New York; and here the matter ended, and did not again arise to the surface at any session of the Association. A similar fate attended the settlement of the question of the employment or recommendation of trade-mark medicines, which it was decided by the Judicial Council should not be adopted by the Association, inasmuch as the resolution includes matters not referred to in the Code of Ethics, and said Code contains all that is necessary for the guidance of the medical profession.

Probably at no preceding meeting had the secular press heralded the advent and doings of the members of the Association with more peculiar phraseology. In bold capitals, startling in their intensity, we have read within the few days past such attractive headings, in the reports of their sessions, as "Life-lending Leeches," "The Esculapian's Eden," "The Grand Feast of the Big Medicine Lodge," "Gathering of the Clans," "Adieu the Omnipaths," and other striking display-lines equally formidable. Never have the minutes of the general sessions of the Association in the mornings or of the afternoon work of the Sections been so thoroughly reported in the columns of the daily press as they have been

by the enterprising papers of St. Paul. The Association recognized this fact by formally giving to them, for general diffusion, the report of the committee on the establishment of a new journal.

The meeting opened on Tuesday, June 6, and, after the usual preliminaries of welcome, protests were read from all sections of the country against the admission of the delegates from the New York State Medical Society, and these were supplemented by a letter from Prof. Gross, addressed to the President of the Association, regretting his unavoidable absence and severely animadverting on the course of the framers of the new Code. Dr. Sayre's letter of declination of an appointment to represent that Society was also read, in which he criticised its course in sending representatives to a body whose laws they had refused to obey. So that altogether the pulse of the Association was felt at an early stage of the proceedings, and its temper and intentions clearly diagnosticated. Dr. P. O. Hooper, of Arkansas, First Vice-President, in the absence of Dr. J. J. Woodward, President, in Europe, delivered the annual address, in which he alluded to the various subjects which had engrossed the attention of the Association since its inception, and to the part taken by it in the introduction of sanitary laws in the various States. He also urged the establishment of a medical journal as the organ of the Association, and deprecated with much force the efforts recently made to oppose and set at defiance the Code of Ethics which had so long been the standard for the medical profession of this country. To Dr. Hooper much credit is due for the dignity and decision with which he presided.

A telegraphic message of sympathy in response to a letter of regret from Dr. Woodward at his enforced absence, the reading of resolutions based upon a temperance standpoint as to the employment of alcohol in therapeutics, and of an invitation from Atlantic City for a meeting of the Association at that place in 1883, and the calling of the roll of members and delegates present, completed the proceedings of the first day. On the second day of the session the Committee of Nominations was appointed, and at once entered on their duties, which were performed, I am told, with even greater harmony than usual. Dr. Packard, of Philadelphia, then read the report of the committee appointed at the last annual meeting in regard to the journalization of the transactions of the Association. As this committee was instructed to report a plan, and not to express an opinion as to the desirability of publishing a journal, its report was strictly business-like in its character, and suggested practical measures for the setting on foot of such an enterprise. It gave estimates for the cost of a weekly journal, and proposed changes in the membership of the Association, fixing the price of subscription to the journal at a lower rate to its actual members, but throwing open the membership to all those connected with State and county medical societies upon application and the payment of an annual fee. It was also shown that if three thousand members of the profession should become subscribers to the journal the mere expenses of that publication would be provided for, independently of all consideration as to the remunerative features of the advertising columns. It was suggested that the Association should be incorporated, and that a board of trustees should be selected, to whom should be intrusted the appointment of an editor and the general control of the journal, which should be called "The Journal of the American Medical Association." The interest of the profession at large was to be solicited by circulars forwarded by the trustees to physicians in every section of the country.

On the same morning an effort was made to alter the organic law so that permanent members should have the right to vote at the annual meetings, a right hitherto denied them. The proposed amendment was lost, chiefly through the excellent remarks of Prof. N. S. Davis, of Chicago, who claimed that every member present is represented in the State Association of which he is a member. If every member of the National Association were allowed to vote, it would destroy the State and local societies, as it now is by means of the State Association delegates that all national movements in medical matters are conducted. Take away the right of doing this from the States by allowing all to vote, and you destroy at once the State societies. If those attending are not represented properly by the delegates from their States, discipline them in your State societies; send delegates who will talk and act aright. The present method, he said, has maintained a high morality and Code of Ethics. It has unified the profession, and brought it to a higher plane of thought.

Dr. J. A. Octerlony, of Louisville, Ky., then read the annual address of the chairman of the Section of Practice of Medicine, and Dr. H. O. Marcy, of Boston, Mass., that of Obstetrics, both of which were excellent papers, and were attentively listened to by the large audience present. The Judicial Council presented a report in regard to various matters assigned to it for consideration.

On the third morning (Thursday) the Committee of Nominations made its report, presenting names of officers of the Association, which, on the final adoption of the report on Friday morning, are as follows:

President—Dr. John L. Atlee, Pennsylvania.

First Vice-President—Dr. Eugene Grissom, North Carolina.

Second Vice-President—Dr. A. J. Stone, Minnesota.

Third Vice-President—Dr. J. A. Octerlony, Kentucky.

Fourth Vice-President—Dr. H. S. Orme, California.

Treasurer—R. J. Dunglison, Pennsylvania.

Librarian—C. H. A. Kleinschmidt, Washington, D.C.

Members of Judicial Council—N. S. Davis, Illinois; J. M. Brown, United States Navy; X. C. Scott, Ohio; M. Sexton, Indiana; N. C. Husted, New York; William Lee, Maryland; J. E. Rives, West Virginia.

OFFICERS OF THE VARIOUS SECTIONS.

Practice of Medicine—J. H. Hollister, Illinois, chairman; J. G. Lee, Pennsylvania, secretary.

Surgery and Anatomy—W. F. Peck, Iowa, chairman; Paul F. Eve, Tennessee, secretary.

Obstetrics—J. K. Bartlett, Wisconsin, chairman; G. A. Moses, Missouri, secretary.

Medical Jurisprudence and State Medicine—Foster Pratt, Michigan, chairman; Thomas L. Neal, Ohio, secretary.

Ophthalmology, Otology, and Laryngology—A. W. Calhoun, Georgia, chairman; Carl Seiler, Pennsylvania, secretary.

Diseases of Children—R. Blount, Indiana, chairman; J. H. Sears, Texas, secretary.

Dentistry—D. H. Goodwillie, New York, chairman; T. W. Brophy, Illinois, secretary.

Committee on Necrology—J. M. Toner, District of Columbia.

Committee on Publication—Albert Frické, chairman, W. B. Atkinson, R. J. Dunglison, J. Solis Cohen, F. Woodbury, J. H. Packard, J. V. Shoemaker.

Assistant Secretary—I. N. Hines, Cleveland, O.

Dr. Keller, of Arkansas, protested against the violation of the amendment which provides that no person shall be elected to office who is not present, except in the Committee of Arrangements. He moved that it be reported back to the committee for corrections,—which motion was carried.

It may be briefly stated that an amendment was adopted last year at Richmond, at his suggestion, restricting these appointments to those present at each annual meeting. The result is not satisfactory in this first year of its working, and the activity of the Association may be seriously affected by its enforcement,—so much so, indeed, that an effort to modify this amendment will be made at the meeting in 1883. Death or sickness, or other physical disability, must, under the present rigid construction, preclude the most worthy officers and committee-men of the Association from continuing their usefulness to it. Dr. William Lee, the valued and efficient Librarian of the Association, who has for many years unselfishly devoted himself to the thankless position, to which no salary was attached, was the first one decapitated under this unwise amendment.

Dr. N. S. Davis, after alluding to the numerous and valuable papers published at various times in the transactions of the Association, offered the following resolutions, which were unanimously adopted, in regard to the publication of a medical journal. I send them to you in full, as they explain so clearly the future of that important enterprise, as outlined at its inception:

"*Resolved*, That the interests of the Association would be promoted by the publication of its transactions in a weekly medical journal under its own control, instead of in an annual volume as heretofore, provided it could be done without involving pecuniary embarrassment, or so far engrossing its funds as to prevent the annual encouragement of original investigations by its members.

"*Resolved*, That so much of the report of the committee on journalizing the transactions as relates to the increase of membership of this Association by applications from members of State and local societies be and the same is hereby approved.

"*Resolved*, That so much of the report of the committee on journalizing the transactions of the Association as relates to the appointment of a board of trustees, nine in number, and their duties, be and the same is hereby adopted, and that the President of the Association now appoint a special committee of seven to recommend to this meeting of the Association the names of nine members for election to constitute said board of trustees.

"*Resolved*, That the board of trustees so appointed be requested to present, as early as possible to agree upon, a plan of a medical journal, to be called the *Journal of the American Medical Association*, and to send circulars explaining such plan and asking pledges of support by actual subscription to the members of the medical profession throughout the whole country, and thereby ascertain, as reliably as possible, what degree of support the proposed journal can have as a basis for commencing its publication. And that said board also proceed to ascertain and agree upon the best methods of publishing said journal, the best editorial services it can secure to take charge of the work, and the best plans for its issue.

"*Resolved*, That said board of trustees be and are hereby instructed, under all circumstances, in whatever plans or contracts it proposes to adopt, to retain the entire control over the use of the advertising as well as of all other pages of the journal that is proposed to be established, and that said board report in full at the next meeting of this Association the plans upon which it has been able to agree, together with the response of the profession to its circulars asking actual subscriptions to the proposed journal, and that the constitutional amendments proposed by Dr. Packard last year be continued upon the table until

the report of the board of trustees is received and acted upon.

"*Resolved*, That the Treasurer of this Association is hereby authorized to pay out of funds in the treasury the necessary expenses of the board of trustees in printing and distributing its circulars and in conducting its proper correspondence.

"*Resolved*, That the Committee of Publication proceed to publish the proceedings and transactions of the present meeting in a volume as heretofore, using all diligence to give it an early distribution to those entitled to receive it."

The committee to nominate trustees, appointed by the President, in accordance with these resolutions, consisted of Drs. L. A. Sayre, New York; J. M. Toner, District of Columbia; J. Foster Pratt, Michigan; R. J. Dunglison, Pennsylvania; Robert Battey, Georgia; W. F. Peck, Iowa; H. O. Marcy, Massachusetts.

Resolutions were adopted urging Congress to aid in the establishment of the Museum of Hygiene at Washington, and to restore the full amount hitherto appropriated to the Army Medical Museum and Library. Dr. Toner presented the report of the Committee on Necrology, and Drs. W. A. Byrd and A. L. Gihon read the annual addresses on Surgery and State Medicine, the former taking up for consideration the subject of Resection of the Abdomen. Dr. N. S. Davis presented the report on Meteorological Records, which is at present partial and preliminary and can only be completed after several years of study and observation.

On the fourth or last day of the session, the reports of the Librarian, Treasurer, and Committee of Publication were presented, after which the following resolution, offered by Dr. Gihon, U. S. Navy, was adopted:

"*Resolved*, That it is the sense of the American Medical Association that it will be conducive to justice and the dignity of the profession that medical expert testimony shall be given without having the appearance of being in behalf of either side, but to be stated simply as facts."

After much discussion, the following resolution was indefinitely postponed:

"*Resolved*, That the Association approve the organization of faculties in medicine having no other foundation than the examination for degrees, as a measure which will increase the value of the present methods of education in medical colleges in this country."

A resolution was tabled which had in view the establishment of a new medical college, under the auspices of the Association, based upon the assumption that "it is known that no school or college exists within the territory comprising the jurisdiction of the American Medical Association whose course of instruction fully meets the requirements of a practical medical education in all of its branches or specialties," and that tuition-fees should be entirely divorced from instruction and graduation.

Dr. N. S. Davis introduced the following resolution, which was adopted:

"*Resolved*, That after the next annual meeting the permanent interests and influence of this Association would be best promoted by again holding every second meeting in Washington, as its home on common national ground, and not as invited guests, while each alternate meeting should be held in such section of the Union as would be most useful in promoting the society organizations in all parts of our country."

Adopted.

On motion of Dr. Marcy, a vote of thanks was tendered the Treasurer, Dr. Richard J. Dunglison, by the Association.

Dr. Sayre, as one of the Committee on the Appointment of Trustees for the Journal, said that the duty of the committee in selecting a board of trustees was a very important one; that in making the selection the committee had been hampered by the resolution passed on Thursday, to the effect that non-attending members were not eligible, as some of the oldest and ablest members of the Association were unable to be present at this session. The trustees appointed by the committee were as follows:

For three years—Drs. Davis, Chicago, E. M. Moore, New York, and Toner, Washington.

For two years—Drs. H. F. Campbell, Georgia, J. H. Packard, Pennsylvania, and Z. Connor, Michigan.

For one year—Drs. Hooper, Arkansas, Garcelon, Maine, and McMurtry, Kentucky.

Dr. Goodwillie, of New York, then read the address of the chairman of Section on Dentistry, and, after general congratulations and thanks, the Association adjourned, to meet in Cleveland, O., in June, 1883. To the Committee of Arrangements, and especially to its genial and efficient chairman, Dr. A. J. Stone, of St. Paul, the members of the Association are deeply indebted for their hospitable reception and their unceasing attention, as feelingly expressed on behalf of the Association by Dr. Davis, of Chicago.

LAVERAN'S MALARIA PARASITE.—In the May number of the *Archives de Médecine Navale*, Dr. Corre, of the French navy, expresses strong doubts as to the parasitic nature of the bodies which Laveran has considered to be the germ of malaria, and which he found in the blood of persons suffering from that disease. He shows that the forms observed by Laveran occur only in the acute forms of malarial fever, in which Hayem has pointed out that the red corpuscles are diminished in number and decomposition-products appear in the blood, and is disposed to agree with Kelsch in considering Laveran's parasite to be merely pigmented corpuscles due to retrograde metamorphosis.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting of the Society was held at the Hall of the Society on February 15, 1882.

APHASIA—TUMOR AT BASE OF BRAIN PRESSING UPON MEDULLA AND PONS.

Dr. Wood exhibited a portion of a brain which had been removed from a woman who had died at the Philadelphia Hospital four or five days previously. She had been hemiplegic on the right side, and aphasic. She had originally been able to speak English and German; but in her paralyzed condition she could only say "yes" and "no" in English, and "Gott im Himmel," and sometimes "Jesus," in German. During two years she had never used the German affirmative or negative, nor an English expression of emotion. At the post-mortem the vessels of the brain were found very generally atheromatous, with several spots of recent softening of the convolutions. Both lateral ventricles were distended with fluid, the left one enormously so. A cyst was found which had replaced the entire breadth of the lenticular body and adjacent portion of the internal capsule. This lesion did not destroy the cortical speech-centres, but their connection with the lower centres through the internal capsule. The retention of such expressions as "yes" or "no" when all other language was lost, in a case like this, suggests the idea that each word has its special centre and a special fibre for transmission, and that amidst the general wreck some filaments escaped.

Dr. Wood also showed the brain of a woman who had very obscure symptoms, of which the principal one was sudden rigidity, coming on sometimes when she was quiet, but more often while walking, the spasm being general and sometimes causing opisthotonus, the whole attack having a hysterical aspect. She also had severe headache, but not constantly, and marked weakness of the lower limbs, which latter symptoms had suggested a spinal trouble. She never had any definite paralytic symptoms. A post-mortem showed a sarcomatous tumor springing from the brain-membranes and pressing upon the medulla and pons, and more severely upon the inferior surface of the right cerebellar hemisphere, so as to cause atrophy of the nerve-mass.

Dr. Walker suggested as an explanation of the retention of certain words in the vocabulary of aphasic patients, that the utterance of these words may be substantially automatic, and, like other automatic actions, be capable of performance by centres below the seat of injury and of lower grade than those which were required to produce them before their utterance became a matter of habit.

Dr. Mills agreed with Dr. Walker. Such words are generally retained as are most likely to be automatic, as "yes" and "no." He recalled a case in which, after total interruption of speech for several weeks, the first sign of return of the faculty was the utterance of an oath. Certain words become, by frequent repetition, substantially automatic in their utterance. Hughlings-Jackson has discussed this question at length.

Dr. Wood said that the theory suggested by Dr. Walker was the favorite one, but he was not satisfied with it. The answers of the aphasic were not automatic: they were directed by a specific intellectual effort, and coincided with the ideas suggested to the patient. In the case under discussion the fact had been tested by asking questions involving a certain number in the answer, and then indicating different numbers with the fingers. The patient would answer "no" until the correct number was shown, when she would say "yes" and smile. Such action was not, in his opinion, automatic. His own idea was that, in accordance with well-known principles, the most used centres were the strongest, and hence resisted destruction longer.

DISCUSSION ON EPISCLERITIS.

Dr. Little exhibited and described a case of episcleritis. This disease, he said, was quite rare, occurring in ophthalmic practice in about one-sixth of one per cent. of the cases. It was an inflammation of the vascular tissue between the sclerotic and conjunctiva. In the present case, the patient, a young woman, had had one attack before he had seen her, another at the time of consulting him, and then the present one. It presented a pustular condition of the sclerotic, with appearance like phlyctenulæ, the left eye being involved, and it had appeared at different points each time, two points of inflammation now existing. The disease arises from unknown causes, and is likely to recur. It is not attended with conjunctivitis, and is not very painful. The danger arises from a possibility of extending across the corneal line and thus injuring sight. The present case showed a superficial keratitis corresponding to the line of episcleral trouble. In the treatment he had at first used atropia, hot water, and mercurial ointments, but had secured much more success by using the artificial leech to the left temple, drawing six or eight ounces of blood. The case is now rapidly improving; the cornea has a somewhat ground-glass look, sight being a little affected by the keratitis. The disease is most frequent in elderly persons and in men. Puncturing and the use of irritants are of no avail in the treatment. In reference to the diagnosis between episcleritis and scleritis, Dr. Little said that the principal points were that the latter was attended by greater

pain and marked tenderness, and was generally of gouty, rheumatic, or other specific order. Episcleritis is a disease of the tissue between the conjunctiva and sclerotica. The general health must be considered. The following table gives some statistics of the disease, showing 221 cases in 135,924 patients, —one-sixth of one per cent.

Name of Institution.	Cases of Episcleritis.	Total No. of Cases.
N. Y. Eye and Ear Infirmary, N. Y. City, '69, '73, '74, '80	4 years, 29	29,534
Manhattan Eye and Ear Hospital, N. Y. City, '69–'79	10 " 37	18,598
N. Y. Ophthalmic and Aural Institute, N. Y. City, '74	1 year, 14	5,570
Brooklyn Eye and Ear Hospital, Brooklyn, N.Y., '69–'81	12 years, 54	23,077
Massachusetts Charitable Eye and Ear Infirmary, Boston, Mass., '78–'81	4 " 29	27,999
St. Michael's Hospital, Eye Department, Newark, N.J., '78	1 year, 2	1,443
Newark Charitable Eye and Ear Infirmary, Newark, N.J., '80	1 " 4	4,219
Illinois Charitable Eye and Ear Infirmary, Chicago, Ill., '79, '80	2 years, 2	3,259
The Wills Eye Hospital, Philadelphia, Pa., '78	1 year, 3	4,686
Eye and Ear Department Philadelphia Dispensary, Philadelphia, Pa., '70–'80	10 years, 45	15,383
Jefferson Medical College Hospital, Eye Department, Philadelphia, Pa., '78–'81	4 " 2	2,156
	221	135,924
11 institutions.	1/6 of 1%	

CANCER OF LIVER AND RUPTURE OF HEART.

Dr. Bruen presented two specimens, one of encephaloid cancer of liver, with embolic abscess in the right lobe. Pus from one of these abscesses had perforated the diaphragm and pleural sac, and had been evacuated from the pleural cavity by paracentesis.

The following points were elaborated from the clinical history and from examination of the specimen.

1. The pus from the abscess was laudable, creamy pus,—not chocolate-colored, as is commonly the case in hepatic abscess, in the speaker's experience. The pus, however, responded to the tests for biliary coloring-matters.

2. *The Nature of the Abscess.*—The collections of pus were circular, and resembled embolic abscesses. The speaker believed this to be the etiology of these collections. The combination of cancer and abscess was unusual, but was probably due to the perforation of the walls of some of the venous blood-vessels.

3. *The Diagnosis.*—In making the diagnosis, more weight should have been given to the question of etiology, so very constantly in this latitude is this cause the true pathology. Lesions are commonly found in the portal vein, the intestine, or even the general system, giving rise to embolism. In the latter case an experiment is recorded in Frerichs's work, in which quicksilver injected into the jugular vein had reached the liver after traversing the pulmonary circulation.

4. *Age.*—Dr. Bruen had seen five cases of cancer of the liver during the winter. Three of these were in persons under thirty years of age,—an unusual circumstance, according to statistics. It is true, however, that all of them had been cases of encephaloid cancer. Frerichs says cancers in early life are secondary; but these cases appear to be primary.

Dr. Bruen also showed a specimen of rupture of the heart. Two small fissures can be seen externally in the wall of the left ventricle, near the auriculo-ventricular boundary. The internal surface was seen to be hollowed out, and the muscle broken up and bruised. The blood probably had gradually filtered through the muscular fibres until the wall had become very thin, when the rupture occurred. The coronary arteries were markedly atheromatous. The aorta was markedly dilated, with a few atheromatous plates. The kidneys were somewhat contracted. The pericardium was found filled with coagula, and some of the fibres of the clot protruded through the rupture. There had been no endocarditis of any form. The immediate cause of death had been straining at stool. The patient died two hours after the rupture. The speaker had met one other case in which life had been prolonged for forty-eight hours. In this case, then, the rupture was due to the fatty state of the heart; and it is possible that cases of sudden death in old paralytics, or others in whom cardiac nutrition is inactive, may proceed from rupture of the heart oftener than is usually suspected.

In answer to a question, Dr. Bruen said that the pericardium was full of clots; in the specimen one of these clots was shown in connection with the rupture; the pericardium was fairly distended. In post-mortems of these cases the clots should be removed carefully, and those attached to the heart should be removed with it. Where the rupture was very minute, it had been proposed to fill the ventricle with water as a means of detecting the opening.

Dr. Neff had seen several cases of rupture of the heart. In some where the rupture was small there was a sudden shock or faint, from which the patient rallied, but died from eight to ten hours afterwards. In the post-mortem he had found the pericardium more or less distended, but not universally so.

Dr. Eskridge said that rupture of the heart might occur and not be detected at the autopsy. He instanced a case he had seen in which a lady in the act of kneeling in church suddenly died. At the post-mortem the pericardium was distended with blood, but he found neither aneurism nor rupture. In this woman the left auricle and ventricle were a

mass of fatty tissue. Several cases were recorded of patients living for some time after the rupture. In one such case he had seen, the blood had dissected out a sinus with a large internal but very small external opening.

Dr. John B. Roberts alluded to a case of rupture, which had been incidentally mentioned by Dr. Bruen, that had been examined by Dr. J. C. Wilson and himself. The rupture was in a position similar to that in the specimen now before the Society, but was somewhat larger, and a clot as large as a man's fist was in the pericardium. In reference to the possibility of blood getting through the heart-tissue without leaving evidence of rupture, Dr. Roberts hesitated to admit the fact. The rupture might be very small and easily overlooked; but he would expect some such evidence as a shred of clot to remain. He had seen a case where a small orifice in the thoracic aorta had filled the pericardium with blood and caused death, with symptoms like those of obstruction of the larynx.

Dr. Seiler referred to a case of rupture of the aorta into the pericardium in which life was prolonged for forty-eight hours. The pericardium was distended to its utmost. Also a case of rupture of the heart at apex of left ventricle, the pericardium being filled with blood.

Dr. Schapringer referred to a case of ulcer of the stomach in which death took place with symptoms of internal effusion of blood. The intestines were full of blood, but no point could be found from which the blood had come. The stomach and duodenum showed cicatrices of old ulcers.

Dr. Eskridge said that cases were on record in which the pericardium was undoubtedly found full of blood, but no rupture could be found. Dr. Keen had exhibited the heart of such a case before the students of the Jefferson Medical College.

Dr. Roberts said he did not doubt that the pericardium might be found filled with blood in these cases; but the point to be proved was, did it come from the heart, and was the examination carefully made?

DERMOID OVARIAN CYST.

Dr. Parish presented a specimen of dermoid cyst of the ovary, which had been obtained at the dissecting-room of the Women's Medical College, and to which no history could be given. The subject was 45 or 50 years of age. The tumor was apparently connected with the right ovary, as this organ could not be found. It was pear-shaped and attached to the right broad ligament. The left ovary was nearly normal. The interior of the tumor showed a grumous mass, probably sebaceous matter and epithelial scales, containing some hair. As yet no teeth or bone have been found; but a thorough examination has not been made. The diagnosis of such tumors is based upon their location, slow growth, and apparent solidity, and by the exclusion of other growths.

Dr. Parish also showed two concretions in the thyroid gland of a male subject. He was indebted to Dr. Emilie Du Bois, Demonstrator of Anatomy of the Women's Medical College, for these specimens.

Dr. Seiler said that concretions in the thyroid gland were rare in this country, but common in localities where goitre occurred, as in Switzerland, Savoy, Tyrol, etc.

Dr. Schapringer said that in the Vienna dissecting-rooms he had generally found concretions in the thyroid glands of subjects past middle age, whether they were goitrous or not.

OPERATION FOR INTRA-NASAL HYPERTROPHY.

Dr. Carl Seiler brought two cases of anterior intra-nasal hypertrophy, upon which he operated before the Society by means of the galvano-cautery. Before proceeding with the operations, he stated that there were two kinds of such hypertrophies,—permanent and temporary. Both produced partial or complete stenosis of the nostril, and should therefore be removed by operation. He also stated that the operation, if properly performed, was painless, or almost so; but great care should be exercised in maintaining the platinum loop of the cautery knife at a cherry-red; for if it is at a white heat a copious hemorrhage will follow the incision, and if not hot enough it gives rise to pain. The mucous membrane only should be cauterized, and the vestibule of the nostril carefully protected by a rubber shield.

Dr. Seiler further stated that he had operated upon a very large number of cases, both in the dispensary and in private practice, without having met with any untoward results; but he said that he could readily understand how inflammation of serious character could follow the operation if too much was done at once. The two patients were then operated upon very successfully. They did not seem to feel the least pain, and were afterwards examined by the members present.

FICTITIOUS URINARY DEPOSIT.

Dr. O'Hara related a case with all the symptoms of a passing renal calculus. He desired whatever was passed to be sent him, and this which was presented was said to have been passed. It had the appearance of a membrane about half an inch square, with crystals (six-sided) on it. It was supposed to be cystine,—a rare form of urinary calculus,—but subsequent examination by Drs. Turnbull and Leffmann, with careful microscopical and chemical examination, led to the conclusion that it had been some months in the bottle in which the urine was placed. That there had been a calculus passed he felt sure, but it had probably been lost.

Dr. Turnbull said the substance appeared to be something which had been in the bottle before the urine had been put in, and on

chemical examination by Dr. Leffmann it proved to be a mass of collodion enclosing crystals of iodoform and some hairs from the brush which had been used in the solution. It was evidently foreign to the urine; and the case illustrated the importance of care in taking samples of urine and of not trusting too implicitly to patients.

Dr. Seiler alluded to a case in which muscular fibres and the leg of a fly had been found in a urinary sediment and were supposed to have been accidentally introduced; but on a second sample being taken with proper precautions, similar articles were found, and the case turned out to be one of vesico-rectal fistula.

Dr. Schapringer alluded to a case in which a patient pretended to have diabetes, and, suspicion having been excited, the patient was watched and was detected diluting the urine.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, APRIL 12, 1882.

VICE-PRESIDENT J. SOLIS COHEN in the Chair.

Tumor of alveolar process of lower jaw. Read by Dr. J. B. ROBERTS.

A YOUNG woman, aged about 20 years, had had for some months a flattened and ulcerated growth on the right side of lower alveolus, behind lower teeth. The tumor overlapped the borders of the gum, and had a fungoid appearance. There was no special pain, no glandular involvement, and general health was very good. I cut away the upper portion by an elliptical incision with the scalpel, and, finding the last molar displaced inward and evidently in close relation with the tumor, seized it with the forceps in order to extract it. To my surprise, the tooth was easily lifted from the bone, and brought with it the remainder of the growth, —about three-quarters of an inch or an inch in diameter,—and left a cavity in the jaw large enough to insert my finger. The surfaces of the cavity and the rough edges of bone were thoroughly cut away by the burr of the surgical engine. On the tenth day the patient was discharged from my care to return to her home in the centre of the State, although there was still a little stiffness of the jaws from swelling and an incompletely-healed wound. I have not heard from her since that time, which is about five years ago.

Report of the Committee on Morbid Growths. —"A microscopical section of the tumor shows, upon examination, the histological structure of fibrous tissue. This tissue is seen in different parts of the section in its various stages of development,—young and embryonal, as indicated by embryonic cells; myxomatous, by stellate and fusiform cells, with a soft, gelatinous, intercellular substance; and mature, by a distinct fibrillar substance separating spindle-shaped cells. The blood-vessels possess evident walls. The growth is a fibroma.

"May 11, 1882."

Apparent atrophy of tumor previously reported, explained by further history of case. Read by Dr. J. B. ROBERTS.

At the meeting of January 12, 1882, I reported a case of apparent atrophy of a tumor of the left shoulder. The published account of my remarks, found in the *Medical Times*, is erroneous in that the wound spoken of was received *seventeen or eighteen years* ago, and involved the *opposite* axilla. Moreover, the tumor did not appear until four or five months previous to time of the meeting, which was seventeen or eighteen years after the injury. The general neurotic tendencies of the patient were merely mentioned to show the character of the individual, and not because the small growth was supposed to be connected directly with the wound, as would be inferred from the published statement.

Since the meeting, the explanation of the case has become easy, and, as I stated I would detail the subsequent course of the growth, I now do so.

On January 25, 1882, he came to my office, saying the tumor was very painful and resembled a boil. Examination showed a small fluctuating swelling, purplish red in color, without any areola of inflammatory redness, and showing no tendency to point at the seat of the former tumor. It resembled and evidently was a subacute abscess of a lymphatic gland. Incision and the insertion of a small tent were followed by speedy cure.

The unusual location on the top and posterior aspect of the shoulder, the history of long duration without inflammatory symptoms, the absence of other enlarged glands, and the exquisite neuralgic pain on pressure, made me look upon it as a fibroma. It was evidently, however, a chronic inflammation of a lymphatic gland and its circumglandular tissue. After remaining quiet several months, the tumor gradually became reduced in volume by absorption of the inflammatory deposits, and then abscess occurred in the gland itself.

This is the explanation of the phenomena.

Dr. SEILER said that he would like to know the pathological nature of the so-called painful subcutaneous tubercles referred to by Dr. Roberts. He had examined a number which were supposed to be neuromata, but had always found them to be cavernous fibromata.

Dr. FORMAD replied that in the celebrated case of Dr. Duhring's, where Dr. Maury had excised the brachial plexus, he had examined a number of the tumors, some removed before, some after death, One, which had been at first reported by Dr. Duhring as a fibroma, he had subsequently re-examined, when it had

proved, like all the others, to be a true amyelinic neuroma starting from the peripheral-nerve filaments. His opinion had been confirmed by eminent European microscopists. He knew of but one other similar case. One of the above-mentioned specimens from Dr. Duhring's patient was the same which Dr. Seiler had considered to be a cavernous fibroma.

Epithelioma of leg. Exhibited by Dr. H. F. FORMAD, for Dr. W. G. PORTER.

The following history was kindly furnished by Dr. Ch. W. Kollock:

Rose D., born in Ireland, age 43 years. She twisted her ankle on a curbstone, but felt very little pain at the time. At the expiration of two or three weeks the leg began to swell, and considerable pain was experienced. It was several years later before there was any sore, and after this occurred a piece of bone came out: the sore healed, but was not "solid," as she expresses it. Later on, the sore again opened, and had the appearance of proud flesh. She entered the Episcopal Hospital, and was operated upon by Dr. Ashhurst, who removed a portion of the tibia. The leg never healed after the operation,—that is, entirely. She entered the Philadelphia Hospital in February, 1881, and from that time the leg grew steadily worse until the 4th of January, 1882, when it was amputated by Dr. W. G. Porter just below the tubercle of the tibia.

It is now about fourteen years since the ankle was first injured. Before the accident she was perfectly healthy, and her parents were healthy according to her statements. The patient is now doing well, but the stump is not healing.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, JUNE 1, 1882.

DR. FORDYCE BARKER, President, in the Chair.

DR. A. B. JUDSON read a paper on

SOME PRACTICAL INFERENCES FROM THE PATHOLOGY OF HIP-DISEASES.

The effect, he said, of the application of traction to a joint in a state of acute inflammation is eminently gratifying. All have experienced pleasure in seeing a patient relieved from his suffering by the simple expedient of the weight and pulley. This method of treatment in cases of hip-disease had been commonly practised. To this effect, he quoted the statistics of the New York Hospital for the Ruptured and Crippled, at which institution, from 1863 to 1873, over one-half the patients suffering from this affection were so treated; and he believed the method was quite commonly adopted by specialists in this line throughout the city, as well as elsewhere. Dr. Judson then took up the subject of the *rationale* of the treatment, having already recognized the relief from pain which it produces. It was generally supposed that by pressure upon the acetabulum, due to contraction of the muscles concerned in the hip-joint, pain was excited, and that by counteracting such muscular contraction by the weight and pulley, or other apparatus, such pressure was relieved along with the sufferings of the patient which it gave rise to. Hunter and several other of the older authorities were quoted as having appreciated in some degree the influence exerted by muscular contraction; but it was not until of late years that full recognition was given to the importance of this pathological factor. The therapeutic precept which implied the overcoming of muscular action, it seemed to him, deserved closer investigation than it had yet received. Various authors were then quoted with reference to the "vicious circle," the influence which inflammation within the joint had to do in causing reflex contraction in the muscles, and the aggravating effect of this latter upon the inflammatory process by pressure which it produced.

The morbid anatomy of the affection was reviewed, and illustrated by drawings copied from Drs. Sayre, Gidney, Barwell, and others. Not a few cases were on record in which the ulcerative process affected the bone alone, the articulating surfaces escaping entirely. This fact threw doubt upon the opinion expressed by some that muscular contraction was the originating factor of the affection, or at least one of the leading factors. Specimens in which the ulcerative process affected the articulating surfaces alone, the bone escaping, were not found by which to support the view that the disease in its incipiency existed in the articulating surfaces or soft parts of the joint and was caused by muscular contraction. The central portion of the bone was usually more deeply implicated than the bony or hard substance, which would go to show that the disease had its origin in the cancellous portion, and from there radiated outward.

The ulcerative process in some cases was so great that, if the muscular contraction were as powerful as we should infer it to be from the amount of weight recommended by some to overcome it, the diseased bone would be crushed and become greatly shortened.

In reviewing the subject, it would be seen that he had not found in the morbid anatomy facts to support the view that in its incipiency the disease could have been due to the muscular contraction causing pressure; but it could not be said that later this did not exert an influence in shortening the limb; and, inasmuch as when it was overcome the patient experienced relief from pain, there was good reason for adopting counterextension in the treatment. But there were also ample rational grounds for its use: it necessarily im-

plied fixation of the joint, and immobility was indicated both by the general history and by the morbid specimens produced.

DISCUSSION.

Dr. V. P. GIBNEY would thank the author for his valuable paper on this important and long-mooted question with relation to hip-disease and its treatment by counterextension. The deductions which had been drawn with regard to the usefulness of traction, and especially in causing immobilization, were very interesting. He fully agreed with the author in his statement that there were various kinds of hip-disease, although he had not in his paper discussed this side of the subject. It was common, he believed, at the present day, to classify cases of hip-disease, so called, into two large divisions, the first including those cases in which there was actual destructive process of the bone, and the second including cases not falling within this category. Almost every physician could bear testimony to the fact that some patients with so-called hip-disease, but in which really only soft parts were involved, giving rise to symptoms simulating disease of the bone, got well under treatment, or even without any treatment, within a short time. Perinephritis in children, or idiopathic perityphlitis, affections which involved the soft parts near the hip, might give rise to symptoms which could be readily mistaken for those of hip-disease. The term hip-disease was less suitable to represent this class of cases than that of articular ostitis or epiphysitis; but perhaps we had not yet arrived at a point where a change in the nomenclature would be desirable. Young girls were sometimes crippled even for years with what appeared to be hip-disease; and on applying a counterirritant over the hip they recovered within two or three weeks. The trouble had been a neurosis or an hysterical joint.

Dr. T. E. SATTERTHWAITE said that while studying the pathology of caries of the ankle in connection with Dr. Gidney, it was found that the disease usually seemed to have its origin in the cancellous portion of the bone. A number of joints were not infrequently affected in the same individual, which would seem to point to a constitutional rather than a traumatic origin.

After a few remarks by Dr. JUDSON, the Academy adjourned.

PYRETHRUM AS A REMEDY FOR PHTHEIRIASIS PUBIS.—A correspondent of the *Druggist's Circular* has used, for the destruction of pediculi pubis, the ordinary Persian insect-powder. The efficiency of this treatment once fully established, the demand for mercurial ointment may be expected to decline. The powder may be perfumed, if desired, with any essential oil, or possibly—if the specialists prefer—with iodoform.

REVIEWS AND BOOK NOTICES.

LECTURES ON THE PATHOLOGY AND TREATMENT OF LATERAL AND OTHER FORMS OF CURVATURE OF THE SPINE. By WILLIAM ADAMS, F.R.C.S., etc., etc. Delivered at the Grosvenor Place School of Medicine in the Session 1860–61. Illustrated by Five Lithograph Plates and Seventy-Two Wood-Engravings. Second Edition. 8vo, pp. 302. London, J. & A. Churchill, 1882.

This is a very excellent book, containing sound anatomical and surgical views, clearly expressed. But it is rather a reprint than a new edition. We have carefully compared it with the former issue, and can find very few changes in the text, and those of small importance. The additions consist of brief notes referring to the views of Barwell, Sayre, and Judson, and an appendix mainly devoted to the subject of the treatment of lateral curvatures. There is also a detailed and illustrated account of a specimen in the Middlesex Hospital Museum.

Mr. Adams confines himself to the discussion of distortions of the spine, not treating at all of caries, or Pott's disease, in which such excellent results have been of late years attained by means of the plan so ably advocated by Sayre, and so generally used by surgeons both in this country and abroad. It cannot be doubted that a want of discrimination between the two classes of cases has sometimes led to disappointment in the results of this mode of treatment.

An extended analysis of a book which is not new will hardly be looked for; but we may say that Mr. Adams enters quite fully into the anatomy and physiology of the spinal column, and describes at length the causes of its curvatures. In connection with each form of distortion he presents the methods of treatment, both by properly-regulated gymnastic exercises and by apparatus.

The typography of the present edition is more agreeable than that of the former one; and we commend the work to the careful study of the profession in this country.

A STUDY OF TUMORS OF THE BLADDER, WITH ORIGINAL CONTRIBUTIONS AND DRAWINGS. By ALEX. W. STEIN, M.D., etc. 8vo, pp. 94. New York, Wm. Wood & Co., 1881.

Although this book certainly contains much information on a subject which is probably unfamiliar to many, even among experienced and well-read surgeons, it has not the originality which would seem to be claimed for it in its title. With the exception, indeed, of the histories of two cases of villous cancer, and of a description of a new dilator for the female urethra, it is a compilation rather than a study. We find almost the whole of it, but in a more concise form, in chapter vi. of "Gross on the Urinary Organs;" and on page

1 of our author there is something very like an unacknowledged quotation from p. 140 of the older work.

Dr. Stein has no doubt done a service in calling attention to a class of cases which by their rarity, as well as by the difficulties surrounding them, are apt, when met with, to perplex and baffle the practitioner; and he has collated the opinions of later writers, apparently with diligence and success. Yet neither in the body of his book nor in the conclusions presented on its last two pages do we find that there is any important addition to the facts and views set forth by the writer above referred to. We note that in the bibliographical list there occurs no reference to seven fully-reported cases in the Transactions of the Pathological Society of Philadelphia, vols. i., ii., iii., and iv. A really complete bibliography of any subject is extremely seldom met with, and involves a very great deal of patient labor.

Perhaps our author intentionally omitted all mention of the endoscope as a means of diagnosis because he had no belief in its usefulness; yet we think the attempts recently made by Nietze and Leiter to improve the instrument have increased the chances of its becoming available, especially in the detection of tumors within the bladder at an early stage of their growth,—a point of great importance, only incidentally alluded to in the work before us.

On p. 36 we observe an inaccuracy which is more frequently fallen into than it should be by writers of our day. Dr. Stein says that tumors sometimes undergo calcareous transformation, and immediately afterwards quotes a case of "bony cyst," another of a tumor "entirely ossified." Unless the microscope revealed true bony tissue, such expressions should not be applied to the formations in question, and can only mislead the student.

A good many typographical errors annoy the reader of this book: the word "dendritic" is twice printed "dentritic," and even familiar proper names are wrongly spelled. The cuts and the mechanical execution of the book are fairly good. J. H. P.

MANUAL OF DISEASES OF THE SKIN: WITH AN ANALYSIS OF EIGHT THOUSAND CONSECUTIVE CASES AND A FORMULARY. By L. DUNCAN BULKLEY, A.M., M.D., etc. New York, G. P. Putnam's Sons, 1882. 12mo, pp. 312.

Dr. Bulkley's little work—a gift from the specialist to the general profession, and which none but a thorough specialist could have written—fills a want in American dermatological literature which has been more and more felt of late years, since the dermatologists of this country have so far departed from the ways of their antiquated predecessors in England. The little English hand-books which have heretofore alone been available for the student have been devised on an absurd plan, and have apparently been stereotyped years ago. They are certainly calculated for the most part to confuse rather than assist the beginner.

Dr. Bulkley's book, arranged as it is essentially according to the classification of the American Dermatological Association, is in accord with the teachings of the dermatologists of this country, and will doubtless find a place as a class-book in all medical colleges where dermatology is taught.

The plan of the book demands the exclusion of the rarer skin diseases from consideration, and also the avoidance of all reference to the pathology and pathological anatomy of the several affections. Chapters on the general subjects of anatomy, physiology, etiology, and diagnosis are followed by classification, and then comes a description of the various individual affections, their characteristic appearance, lesions, etc., and the affections with which in each case they may be confounded. The subject of treatment receives as much attention as it is possible to give in a book of the kind, and the student is referred to the abundant formulary at the end of the volume for the prescriptions appropriate in each disease.

We can cordially recommend this little book of Dr. Bulkley's to the student and practitioner, not as in any way superseding such complete works as that of Duhring, but as introducing and leading up to the more complete treatise. The transition from one to the other can easily be effected, because the dermatologists of America are working on a uniform plan, and the confusion which formerly reigned in this section of medicine is, thanks to their labors, now a thing of the past. A. V. H.

A TREATISE ON DISEASES OF THE EYE. By HENRY D. NOYES, A.M., M.D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College, Surgeon to the New York Eye and Ear Infirmary, President of the American Ophthalmological Society, etc. 8vo, pp. 360. New York, William Wood & Co., 1881.

This volume, which is No. 12 of Wood's "Library of Standard Medical Authors," is a good book, and will add at least its full share to the value and success of the series. The author has spared no pains to bring his treatise up to the times in all essential points, and "to condense into the limits assigned to him the substance of modern ophthalmic knowledge." More attention is given than in most text-books to the anatomy and physiology of the eye, and the directions for the use of the ophthalmoscope and for the detection and correction of the defects of refraction and accommodation are clear and sufficiently full. There is not a large number of typographical or other errors, but one in

figures on page 75 is likely to prove an exasperating stumbling-block to the student who is groping for the first time among the difficulties of mixed astigmatism. The cylindrical glass should be 9, and the spherical 18; instead of the reverse, as it stands.

Of the general "get-up" of the book, perhaps the less said the better, except that it is not reasonable to expect much elegance for one dollar. Most of the colored plates, however, and some of the wood-cuts, would be dear at any price, and had better have been omitted. Fig. 19, for example, on page 32, we believe will be a hopeless puzzle to most readers, particularly as no reference is made to it in the text.

Dr. Noyes has done his share of the work well: the book is a useful one for both the specialist and the general practitioner, and would no doubt meet with high appreciation from both if it could appear on its own account and in a more becoming dress.

GLEANINGS FROM EXCHANGES.

THE TREATMENT OF HEMORRHOIDS BY CRUSHING.—Mr. Fitzroy Benham, in a contribution to the *Lancet* (April 15), speaks in enthusiastic terms of the new treatment for hemorrhoids by crushing, which was introduced in 1880 by Mr. Pollock. From an experience extending to one hundred and thirty-one cases treated in this manner by a clamp especially devised by the writer for the purpose, he says that the results were uniformly successful, painless and bloodless: he says, further, that "in not one instance, with the exception of the first two, was it necessary to apply even a fine ligature, so effectual was the crushing process." The clamp is shaped somewhat like a large pair of pincers, and its crushing power is very great. The following details are given of the operation: "The bowels should be well opened by the aid of some purgative,—perhaps the simplest is either Glauber's salts or the compound senna mixture,—and, in addition to this, it is usually advisable to give a common enema just prior to the time fixed for the operation, and to steam the parts in the usual manner. The patient, having been placed under the influence of ether, should be turned on one side, usually the left, with the buttocks well drawn to the edge of the bed, and with the knee remote from the bed, well drawn up towards the abdomen. The pile to be removed is to be drawn down by means of a pronged fork or vulsellum. The clamp is then to be applied to the base of the pile, and at once tightly and firmly closed by the action of the screw at the end of the handles. The portion of the pile which protrudes inside the lips of the clamp is then to be removed by a pair of scissors curved on the flat, or scalpel. After the clamp has been allowed to remain *in situ* for about a minute, the thumb-screw may be gradually slackened; but, at the same time, particular care must be taken to press the jaws of the instrument well up against the buttocks, so that the surrounding tissues may not be unduly stretched; otherwise they will return into the bowel with an 'elastic recoil,' and will thus have a tendency to tear asunder the 'fringed remnant' left by the clamp. I cannot too strongly impress this on the attention of the operator; for the success of the operation being rendered bloodless depends in no small measure on his taking this precaution. The process is, of course, to be repeated according to the number of masses to be got rid of. If several piles are to be removed, it is advisable to operate first on the lower, or those situated more externally, and then to proceed upward; for by adopting this method the 'fringed remnants' left by the clamp from the former masses will not be subjected to so much tension when the latter are operated on. If a pile be of an unusually large size, so much so that it is apprehended that a portion may overhang the sides of the jaws, I clamp the mass in two portions; but before releasing the grip of the jaws from the first portion I divide only a part of it which is within the grip of the jaws, and then take particular care to have a firm hold with the vulsellum of the portion not yet operated on.* Occasionally it may be advisable to separate the skin before clamping the pile; but, as a rule, I have not found this at all necessary, or even beneficial, for this reason alone,—the area of the wound to be healed is materially increased. After the operation I simply sponge the parts, and usually administer an anodyne, not so much for the purpose of alleviating pain, but chiefly to quiet the patient, as he naturally becomes restless for a few hours afterwards, until the effects of the ether pass off. It is as well that the bowels should not act for about five or six days after the operation, but should they be relaxed I administer opium, either the tincture or a suppository, which I also do in those exceptional cases in which patients are peculiarly sensitive to even the slightest pain. On the morning of the sixth day I usually give about three drachms of Glauber's salts in warm water, and if this does not readily act, which may cause the patient some discomfort, I then administer an enema. By this means the motions become loose, thus reducing the pain arising from the hardened fæces passing along the tender parts, to a minimum. After the bowels have acted, the parts are to be carefully sponged and smeared over with carbolized vaseline (five grains to the ounce), by gently introducing the finger into the bowel. The diet should at first be light and nourishing, but not stimulating, unless

* I have recently introduced a modified clamp, so that on each side of the jaws there is a projecting lip or beard: hence it is impossible for the sides of a large mass of tissues to overhang the jaws.

otherwise indicated. It is rarely necessary for the patient to remain in bed after six or seven days, if the bowels have acted, but it is not advisable to allow him to resume any active work for at least a fortnight after the operation, and, indeed, even for a few days longer, if he be a laboring-man."

THE PHYSIOLOGICAL EFFECTS OF BOLDO.—During the last few years several articles have appeared in relation to *boldo*, an evergreen shrub from Chili, the leaves of which contain a volatile oil. A tincture and extract of the drug have been used in general debility and weak heart; the oil has been recommended for its influence on the mucous membranes, and especially in inflammation of the genito-urinary tract. Verne, who directed attention to it in 1874, has recently made some physiological experiments to determine its effects in man upon the circulation, temperature, quantity of urine, and excretion of urea. (*Bull. Gén. de Thérapeut.*, April 15.) He concludes that the "aromatic substances and *boldine* are eliminated by the urine. Boldo has no effect on the circulation, temperature, or upon the quantity of urine, but it sensibly augments the elimination of urea." In this respect it resembles coca, as it does also in a slight exhilarating effect.

NOTES AND QUERIES.

PHILADELPHIA, June 1, 1882.

EDITOR OF THE MEDICAL TIMES:

DEAR SIR,—The case of J. B., published in the *Times* of May 6, 1882, has elicited criticism, and is refused admission to the rank to which it is assigned. Dr. Van Harlingen, the critic, objects to my diagnosis of prurigo, first, because in this country prurigo is a very rare disease. Two cases of prurigo *have been* placed upon record. It is therefore possible that other cases of prurigo may be found upon this continent. Had prurigo never been seen here before, and a case answering to the requirements of that disease and to no other fallen into my hands, I should have reported it as prurigo, without bestowing as much importance upon the question of frequency as the doctor would have us to do. Secondly, I admit the difficulty in determining between true prurigo and chronic papular eczema. As the result of observation and study, extended over a period of many months, upon the case of J. B., I can affirm the statement in the history that the eruption was always the same. For nearly two years, during which I watched the case, the lesions, when they appeared, were papules, and, as the result of scratching, covered with blood-crusts, the surrounding skin being more or less thickened. Most strongly against chronic papular eczema is the constant character of the lesion for eight and a half years. Eczema (in a child) of so long standing would have shown its protean nature. Eruptions of a moist, scaly, vesicular, or other form would have occurred, supplanting or in addition to the acuminated papule of eczema. In J. B.'s case the eruption was constant, invariable, rebellious for seven years to treatment, and never anything else than a papule, with more or less thickening, and accompanied by intense itching. Thirdly, the doctor distrusts the diagnosis because the medicaments acted so quickly (?). The doctor forgets that for seven years this lad had tried many prescriptions, some possibly written by Dr. Van Harlingen himself. Each and all of these failed to relieve the disease.

I lay no claim to having *cured* the case, nor do I regard the selection of the medicines as creditable. I regard the use of sulphur ointment as simply accidental.

By carefully re-reading the report of the case, with the aid of this communication, the doctor will perhaps discover in his criticism in the *Times* of May 20, 1882, evidences of hasty judgment.

Respectfully,
H. C. BOENNING,
528 Franklin St.

NOTICE TO GRADUATES OF BELLEVUE HOSPITAL MEDICAL COLLEGE.

A SECOND decennial revision of the Catalogue of Alumni of this college is being prepared for publication, and we are requested to ask that all graduates send their present address at once, on a postal-card, to the Historian of the Alumni Association, Bellevue Hospital Medical College, New York, N.Y.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM MAY 28 TO JUNE 10, 1882.

MAGRUDER, D. L., MAJOR AND SURGEON, MEDICAL DIRECTOR, DEPARTMENT OF THE MISSOURI.—Granted leave of absence for one month. S. O. 110, Department of the Missouri, June 1, 1882.

MCKEE, J. C., MAJOR AND SURGEON.—The extension of leave of absence on surgeon's certificate of disability, granted him in S. O. 262, A. G. O., November 10, 1881, still further extended six months on surgeon's certificate of disability. S. O. 122, A. G. O., May 26, 1882.

WATERS, WM. E., MAJOR AND SURGEON.—Granted leave of absence for four months. S. O. 121, A. G. O., May 25, 1882.

BROWN, J. M., MAJOR AND SURGEON.—Having reported at these headquarters, is assigned to duty at Newport Barracks, Ky. S. O. 57, Department of the South, May 29, 1882.

BROOKE, JOHN, CAPTAIN AND ASSISTANT-SURGEON.—To be relieved from duty in Department of the South, when Major Brown shall have reported for duty therein, and to proceed, on July 1, 1882, to Presidio of San Francisco, Cal., and report in person to the Commanding General, Military Division of the Pacific, for assignment to duty in Department of California. S. O. 121, c. s., A. G. O.

CALDWELL, D. G., CAPTAIN AND ASSISTANT-SURGEON.—Upon completion of packing and turning over the medical supplies at Fort Sanders, to report to the Commanding Officer, Fort Fred. Steele, Wyoming, for duty as post surgeon. S. O. 56, Department of the Platte, May 29, 1882.

O'REILLY, R. M., CAPTAIN AND ASSISTANT-SURGEON.—Now at Washington, D.C., to report in person to the Attending Surgeon at this station, for assignment to temporary duty in his office. S. O. 124, A. G. O., May 29, 1882.

BROWN, PAUL R., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for six months on surgeon's certificate of disability. S. O. 121, c. s., A. G. O.

SEMIG, B. G., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one year on surgeon's certificate of disability. S. O. 121, c. s., A. G. O.

TAYLOR, M. E., CAPTAIN AND ASSISTANT-SURGEON.—Now awaiting orders at St. Louis, Mo., to report in person to the Superintendent Mounted Recruiting Service, for temporary duty at the Cavalry Depot, Jefferson Barracks, Mo. S. O. 126, A. G. O., June 1, 1882.

TESSON, L. S., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at the Cavalry Depot, Jefferson Barracks, Mo., and to proceed on July 1, 1882, to San Antonio, Texas, and report in person to the Commanding General, Department of Texas, for assignment to duty. S. O. 126, c. s., A. G. O.

DAVIS, WM. B., CAPTAIN AND ASSISTANT-SURGEON.—Having reported at these headquarters, will proceed to Fort Totten, D.T., and report to the Commanding Officer of that post for duty. S. O. 86, Department of Dakota, May 24, 1882.

CARTER, E. C., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Having reported at these headquarters, is assigned to duty at Camp Price, A.T. S. O. 78, Department of Arizona, May 24, 1882.

RAYMOND, H. J., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Having reported in compliance with S. O. 103, c. s., A. G. O., is assigned to duty at Whipple Barracks, A. T. S. O. 77, Department of Arizona, May 22, 1882.

GRAY, WILLIAM W., FIRST-LIEUTENANT AND ASSISTANT-SURGEON, FORT TOWNSEND, W.T.—Granted leave of absence for one month, to take effect the 3d proximo. S. O. 67, Department of the Columbia, May 24, 1882.